



COLMAN'S RURAL WORLD

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

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COLMAN'S RURAL WORLD.

H. A. COLMAN, EDITOR.

Published every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmers B. Colman, 620 Temple Court, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

Subscribers should bear in mind that the RURAL WORLD is stopped when the time paid for has expired. To keep up a constantly increasing subscription list we allow old subscribers to send a NEW name with their own for one dollar, and to add at any time NEW names at fifty cents each—but renewals without new names are at one dollar a year. We also allow subscribers to club with a week's "Globe-Democrat" at \$1.35 a year—thus securing two one-dollar papers at that very low price. We appreciate the kind efforts of our patrons in all parts of the union in speaking good words in behalf of the RURAL WORLD, and it is to these efforts we attribute our constantly increasing circulation.

Certainly all the subscribers of the RURAL WORLD ought to know that it is published strictly on the cash in advance system, and that when the month named on the tag of each copy of the paper has expired, the paper will stop. For the last 20 years or more this system has been pursued. We tried the credit system to our hearts' satisfaction and to our pockets' great loss, for not ten per cent on our outstanding credits were ever collected. Now we keep no accounts whatever for subscriptions. The price at which the RURAL is published is so small that any one can remit if he wants it, and if he don't want it we do not want to force it upon him. Every now and then some one feels insulted if the paper is stopped when the time paid for has expired. We are sorry for this, but our rules to all are alike—rich or poor. The publisher never looks over the subscription list. He prescribes certain rules which the employes follow. Any old subscriber can get his paper as cheap as a new subscriber by getting a new subscriber to join with him—the two for one dollar for one year—less than the actual cost of the paper. And by the way, this is the time to do some good missionary work. Those who have tried the RURAL WORLD and know of its cheapness and its sterling worth can be of great aid in increasing its circulation, and consequently usefulness. Will not every reader engage in this good work?

THE GREAT SOUTHWEST.

The complete recovery of the south from economic conditions imposed by the civil war and the reconstruction period is evidenced by the term "new south" by the industrial and commercial growth of that section. The great southwest, nearly one-third of the total area of the United States, has shared in the conditions which have retarded the development of the south, but substantial evidence from many sources shows that this wonderful agricultural domain is making its future before it, but that future is assured.

It will be all the more splendid for occurring contemporaneously with what is called the "new agriculture" and the "revolution in farm life." Its structure is new. As vast areas are yet unoccupied, their settlement and improvement will be made under up-to-date methods. There need be no patch work—no making over. Yet the new southwest wears a different aspect from the old. The spirit of enterprise and energy now apparent is the dominant force in the evolution from the old days of easy-going to the new era of hard things happen.

If the plans of Mr. Arthur P. Davis, hydrographer of the United States Geological Survey, are carried out, the conservation of the waters of the Colorado river will make millions of acres of Arizona desert to literally blossom as the rose.

These are only hints of the future of the great southwest, with which St. Louis is so closely identified that a word in this connection may be appropriate.

St. Louis, being the gateway to the growth of the fourth city of the union is both cause and effect of the advancement her territory is making. The metropolis of this domain is unique in the fact that a 500-mile circle drawn around it includes a greater population and much larger land area than any other American city.

The bond between St. Louis and the southwest is very close—their interests are mutual and the enterprise and enthusiasm of the business men of this city demonstrate the permanent advantages which will accrue to St. Louis through the expansion and evolution of the south.

By this time all the corn will be cut that will make good fodder. Some of our correspondents have said: "Won't be able to cut all my corn this year; help scarce and high priced, etc." This brings out the question whether the farmer who does not cut and cure his fodder can compete with the one who by so doing gets an extra profit. And the farmer of the future you cannot dodge the fact of competition.

Competition does not mean in this case an effort to steal trade by underselling; it means that prices are set by the average class of unwise agriculturists who can meet a low market and still realize a profit. Can you afford to undertake so much work—way too big a cornfield—than your best efforts can not be put upon it? Would it not be better to plant a smaller acreage and by proper saving of all the corn plant (40 per cent of which is in the fodder), thus make a much larger field? It was possible with the two large fields? If you are not satisfied to cut down your acreage increase your facilities for handling the crop by investing in a corn binder which will do the work of five men with corn knives and puts the crop in convenient shape for handling. Calculate first the cost of the harrow and see if the increased value of the crop will not go a long way towards it. There is no reason why a corn harrower should not become the joint property of a small "syndicate" of neighbors, or one can assume its responsibilities, cutting for an agreed sum the crops of his friends. The time has gone by when corn is profitable because it is "easy" to plant, cultivate and gather. The true profit—above cost of labor—will be shown only where the grower is properly equipped with the right kind of machinery. If this is not the case you would better put your land in grass and grow less corn.

MISSOURI IN 1902.

Missouri is easily in the first rank among the agricultural states this year, followed by Iowa, Illinois, Indiana, Ohio, Pennsylvania and New York. In the order given. Missouri is second to Texas in number of farms and second to Iowa in the proportion of improved lands, but first in value of farm products.

The crop reports on Oct. 1 give the Missouri corn condition 94, and the next state (Indiana) only registers 97, and Iowa and Kansas, the old corn stand-bys, show respectively 76 and 87. The acreage of corn this year is 7,645,000 acres, and while the ten-year average yield is but 20 bushels, it is believed that the average this year will be close to 40 bushels per acre. On this estimate the corn crop will run over 300 million bushels. The average quality is 94.

Missouri (first in zinc, third in lead), and the manufacturing interests, which rank high, owing to the presence of large cities within her borders, the grand old commonwealth presents such a picture of prosperity that we are constrained to inquire, "What is the matter with Missouri?" and to the listening ear comes back the echo from 3,106,655 loyal Missourians from the 68,735 square miles of her fertile hills and valleys that "She's all right!"

A CORN PALACE.

The farmers of Henry county, Missouri, are getting up a corn carnival, to last a week, to be opened in Clinton on the first inst. They are building a corn palace, and are making efforts to eclipse anything of the kind ever got up in Missouri. Hon. Norman J. Colman, editor of the RURAL WORLD, of St. Louis, has accepted an invitation to deliver an address before the convocation of people there assembled on Friday, the first inst.

A MISSOURIAN IN VIRGINIA.

Editor RURAL WORLD: In the dead hour of night the Chesapeake & Ohio train carries me over the Kentucky line into the coal fields of West Virginia, a region producing more real tangible wealth, if less inviting in appearance, than the "Blue Grass Region" just left behind. Notwithstanding the continuous puffing and snorting of the engine during the still hours of early morning, daylight still finds me in West Virginia. The train climbing up a narrow valley hemmed in by hills on every side, with here and there a cultivated patch and a cozy mountain home to denote the presence of civilization. The view in the early morning light was weird and picturesque, from some points of vantage grand and imposing to an extent to stir the enthusiasm of tourist or hunter, but to the eye of the farmer from a utility point of view, the prospect was truly miserable. The barren looking sandstone cap rock of this section cropped out in the railway cuts, and along the roadside and everywhere the betokened barren soil, even where the grade was less than an angle of forty-five, and that occurred seldom enough to make a cultivated patch a rarity. The train on the down grade runs into a black slate underlying the sandstone; still further along the black slate entirely replaces the sand rock, the valley flattens out a little for a few miles and makes space for a small congregation of mountain homes, which are presently left behind as the train rolls up a heavy grade, into a long tunnel, crosses the state line and emerges into daylight on the historic soil of Virginia.

A soft drizzling rain is falling and the mist curls and creeps around the mountain tops, which beneath this gray mantle present all the aesthetic colors of the early fall hardwood forest. As the train rushes along the mountain sides gradually reaching a lower level, the black shale formation is left behind, followed by a rocky chert, and finally at the base the red soil and limestone is reached. Following this formation in the order named are the little mountain farms; at intervals lower down a little larger and more prosperous looking farms, and in the future the valley is filled with closely cultivated Shenandoah valley, which the C. & O. R. R. crosses at this point and again begins to climb the mountain side, only giving the traveler a glimpse of a few large prosperous looking farms to notify him of the rich farming district of the Shenandoah, at its lower level. The uphill climb is just a reversal of the down grade experience, and crossing the ridge of the intervening mountain the train winds its sinuous way down into the celebrated valley of Virginia, with its rich, red, fertile soils, closely cultivated, comfortable but somewhat antiseptic looking homes, and a most picturesque looking barns. The valley of Virginia, viewed from the mountain slopes, presents a pleasing vista of closely cultivated farms, but to a traveled western farmer accustomed to larger and more uniform sections of agricultural territory it will look small and contracted in comparison.

This little garden spot is the first abiding place of the old cavaliers who settled it contemporaneously with the settlement of New England by the round-head Puritans. The old stamping ground of the cavaliers, although comparatively limited, agriculturally speaking is rich compared with any similar section in New England, but it utterly lacks the neat, natty appearance of a New England landscape. The variegated hues of houses and barns denote want of paint, which is evidently applied on the principal of the schoolboy's morning wash, where he could not realize the necessity of washing, for the reason that he would be as dirty as ever next morning. The cultivation appears to be intelligent, and the crops are neatly cared for, but there is a slovenliness of detail not observable in New England, or in Central Pennsylvania, but which is always found south of Mason and Dixon's line.

"Pedigree tells." The old cavaliers were a high-toned sport-loving race, with a soul above manual labor or detail. Their descendants branched out into Kentucky, Tennessee, Carolina and Georgia, and this trait has evidently clung to them with the same tenacity as the parsimonious and neat handed methods of the Puritans.

The types which to-day represent these hardy pioneers, the one giving its peculiar stamp to the manhood of the north,

who are ever ready to settle a dispute by metaphysical argument, the other stamping its descendants of the south with the same willingness to settle one by direct physical methods. The one race to hoard and save money, the other to spend it with open-handed generosity. The one delving into material philosophy to enable him to square his conscience with close transactions and add to his material wealth, the other trying to excel in all many arts from a high-toned chivalrous point of view, caring little for the accumulation of wealth, other than for its purchasing power. Such are the distinctive types of the descendants of the old pioneers who first formed the nucleus of our great commonwealth, as seen to-day on their respective native heaths.

There is but slight admixture of outside race in either section—lack of space and love of home holding the districts largely in possession of the descendants of the original settlers, but the peculiar views and idiosyncrasies of each have largely permeated the entire continent, which, taken in conjunction with the great influx of European immigration, has developed the cosmopolitan proclivities of the people of the west.

Getting back to the agricultural aspect of Virginia, the valley proper is closely and intelligently cultivated, but is of limited extent. There is a bench land of much poorer soil lying along the foothills on the west and north, which is mostly in pasture and is neatly fenced and well stocked, mostly with Shorthorn grades, and occasionally a bunch of scrubby cattle are to be seen, which would do credit to the Ozarks in Missouri. In the matter of cattle and horses the Virginians are distinctly behind their descendants of the "Blue Grass Region" of Kentucky, but ahead of them in the matter of intelligent rotation and cultivation of crops.

The reader will pardon me if I have diverged briefly from straight agricultural matters, but there is a something in the aspect of Virginia and its early associations with the history of our country that impels an allusion to the past.

These early settled districts have a large extent to exist on their past, as their present represents but a tythe of the wealth of this country, particularly from an agricultural standpoint. Leaving the Valley of Virginia the C. & O. R. R. crosses a broad expanse of poor, gravelly country, and crossing the salt marshes of the Potomac rolls into Washington, the nation's capital, from whence the thread to New York is taken up by the P. C. R. R., which in turn traverses the states of Maryland, Delaware, Pennsylvania and New Jersey.

The scene has changed; this territory is also in a pioneer district, settled by a mixture of Huguenots, Dutch and Quakers. The agricultural situation is also different. Along this line of 300 miles facing the Atlantic are the populous cities of Washington, Baltimore, Philadelphia and New York city, and many minor towns. Dairy supplies and truck and a ready and profitable market, and a majority of the farms, more particularly in New Jersey, are devoted to these industries. The soil varies in fertility—in the neighborhood of Washington and Baltimore it is thin and gravelly, but between the Potomac and the Delaware, and in New Jersey, it is a serviceable soil, all closely and very neatly cultivated with intelligence and success. The general appearance betokens prosperity and thrift.

The various breeds of dairy cows predominate in the pasture, which look fresh and the cattle show visible signs of hand feeding. Every acre of corn is either neatly shocked or housed. A considerable acreage of wheat has been planted, and ordinary fall work is apparently well advanced.

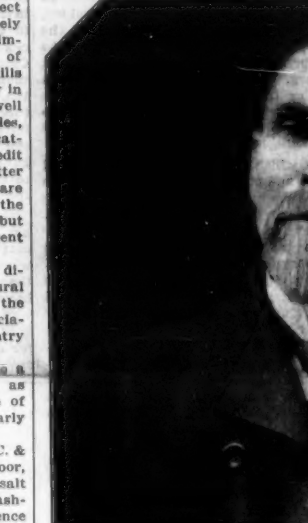
I have not the space, nor is there any necessity for referring at length to a detailed and accurate treatise on some special topic, such as "Feeding Wheat to Farm Animals," "Alfalfa Growing," "Corn and the Sorghum," "The Helpful Hen," "Cow Culture," "The Beef Steer (and His Sister)," "The Plover, Cow and Sheep," "The Horse Useful," "Forage and Fodders," "Dairying in Kansas," "Shorthorn Cattle," "Hereford Cattle," "Folled Cattle," etc. The fact to remember in connection with these quarters is that they not only go to the bottom of the subject, but the matter is authoritative. Secretary Coburn does not predict nor theorize, nor generalize. His treatment of the subject is concise, lucid and exact. His work on alfalfa has been elaborated and published in copyable form. It is the law and the gospel on alfalfa.

Mr. Coburn is no politician, and claims to be the only man in Kansas who can not make a speech. He is rewarded by the admiration and faith of every farmer

town and was in business in town, and was rewarded with success to the extent that I was able to buy and pay for a good farm. But to not make it appear that I was unusually bright, I will add that I embarked in business with a brother who had clerked for fifteen years and thoroughly understood the business. While the farmer's paths are not strewn altogether with roses and luxuries, the business man spends many sleepless nights worrying over unpaid bills, losses by shipping debtors and many other difficulties. Now I feel that if you must retire to town, turn the place over to some good man, build another house for tenant and stay where you can at least see how things are running. I know of farmers in our country who sold their farms and are now walking the streets as restless as caged hyenas, and they never will be contented. JOHN H. CURT, Bloomfield, Iowa.

F. D. COBURN.

Every once in awhile in statecraft, letters, scientific research and art some fig-



F. D. COBURN, SECRETARY OF THE KANSAS STATE BOARD OF AGRICULTURE.

ure towers above his fellows and receives the laurel crown of genius. Such a man is Foster Dwight Coburn, who possesses so much of the divine gift of genius for his chosen work that he stands alone and conspicuous in the agricultural world, in a class by himself. After all, his genius is simply a capacity for hard work without making any false motions. Every lick counts. Behind his work is a clear brain, a sane, level-headed judgment, a certain honesty of purpose, a deep shrewdness, a life of practical knowledge, and above all a mind of large ideas untrammelled by conventions. Such is the man who has made Kansas. It is not too much to say that the importance of the Sunflower State in the eyes of the world, "Corn and the Sorghum," "The Helpful Hen," "Cow Culture," "The Beef Steer (and His Sister)," "The Plover, Cow and Sheep," "The Horse Useful," "Forage and Fodders," "Dairying in Kansas," "Shorthorn Cattle," "Hereford Cattle," "Folled Cattle," etc. The fact to remember in connection with these quarters is that they not only go to the bottom of the subject, but the matter is authoritative. Secretary Coburn does not predict nor theorize, nor generalize. His treatment of the subject is concise, lucid and exact. His work on alfalfa has been elaborated and published in copyable form. It is the law and the gospel on alfalfa.

When it is understood that Kansas is essentially a commonwealth of farms the opportunities of a man at the head of the State Agricultural Department will be realized. That Kansas is unique, the most tried, best advertised and in some respects, the foremost farming community in the union, proves that "Coburn of Kansas" has not neglected his opportunities.

Born in Wisconsin fifty-six years ago, an honorable service in the civil war, a trip to Franklin county, Kansas, thirty-five years ago, where he worked for his old colonel as farm hand at \$12 a month, a purchase of a farm paid for by hard digging, twelve years as a practical farmer, a brief occupancy of his present position, twelve years as editor of a live stock journal, back again to the Board of Agriculture—such is the outline of his career.

One of the distinctive features of his work as secretary is the publication of quarterly reports or bulletins, each an exhaustive and accurate treatise on some special topic, such as "Feeding Wheat to Farm Animals," "Alfalfa Growing," "Corn and the Sorghum," "The Helpful Hen," "Cow Culture," "The Beef Steer (and His Sister)," "The Plover, Cow and Sheep," "The Horse Useful," "Forage and Fodders," "Dairying in Kansas," "Shorthorn Cattle," "Hereford Cattle," "Folled Cattle," etc. The fact to remember in connection with these quarters is that they not only go to the bottom of the subject, but the matter is authoritative. Secretary Coburn does not predict nor theorize, nor generalize. His treatment of the subject is concise, lucid and exact. His work on alfalfa has been elaborated and published in copyable form. It is the law and the gospel on alfalfa.

In the state, who would elect him governor or United States Senator if he would permit. What his future reward or rather what field of usefulness he will occupy we are unable to say. Judging from the temper of the man who would say that his work is his reward, and while not coveting distinction, he would not shrink if called to higher duties. If the report that Secretary Wilson will retire within a year be true, there is no man in the land who would fill the place of United States Secretary of Agriculture so acceptably as F. D. Coburn. He is very much of a Roosevelt sort of man. Indeed the likeness is very striking in his mental equipment. Vigorous, fearless and straight, he is a fit exemplification of the highest type of American manhood, which President Roosevelt has so well characterized in his words on "Character," as follows: "Character, that compound of honesty and courage and common sense, will avail us more in the long run than any brilliancy on the stump or any advising legislative means and methods. The brilliancy is good. We need the intellect; we need the best intellect we



F. D. COBURN, SECRETARY OF THE KANSAS STATE BOARD OF AGRICULTURE.

can get; we need the best intelligence, but we need more still—character. We need common sense, common honesty and resolute courage."

AUTUMN DAYS AT SEVEN PINES.

Editor RURAL WORLD: The summer and autumn have been very busy seasons with our farmers, as the frequent and heavy rains have so interrupted farm work that the hours and days which the earth and other conditions were in proper order extra labor had to be performed. The last four months have been a period of time which represent truly what President Roosevelt calls the strenuous life.

The harvesting of oats and hay moved in irregular sections, being broken up and placed on a side track by a heavy rainfall of two or three days' rain. The summer and the autumn have been in strikingly direct contrast to the dry and warm growing months of last year. And yet the general crops are wonderfully prosperous, and the interest of our farmers are graded away up above the average of 100 in corn, wheat, hay, potatoes, sorghum and other products, and in the prices of farm animals.

The area of winter wheat is reduced this fall here in the Mississippi and Des Moines valleys. The acreage planted is growing and will be in vigorous condition for the winter trials of freezing and thawing and the process of desiccation. Whoever saw such a display of the sorghum industry? The plants made a gigantic growth, and syrup makers tell me that the juice of the sorghum cane is yielding a very fine quality of sweetness. Manufacturing of sorghum has been prosperous this autumn and prices rule fair. The prices of the new corn crop starts out at rates favorable for the farmer, and the demand promises to continue to such an extent that there is not likely to be a piling up of enormous bulks of corn like our country witnessed five or six years ago. Great crops are a blessing to the general people, as they bring the comforts and necessities to all classes.

NEWS AND COMMENT.

Read the program for Missouri Dairy Association meeting on 8th page.

New Orleans is just emerging from the throes of a street-car strike, and the easy-going Creoles may now ride without fear of assault. Why do most of the strikes occur in times of prosperity? He is indeed a clever expert who can rightly appraise the greater cost of shelter and feed requisite for keeping profitably and comfortably the cattle on the farms and in those herds where with horns they gouge and gore and rip and ram each the one next weaker, as compared with the expense of caring for the same number unarméd, dwelling harmoniously content, in compact quarters, such as their size, number and comfort, rather than strength and viciousness, demand.—F. D. Coburn in his latest bulletin on "Folled Cattle."

We commend to western orchardists the letter from F. M. Kieley on page 3 on "The Ben Davis Apple." Mr. Kieley speaks with authority on the apple question, and his dictum of the fate of Ben Davis is expert opinion, vindicating the soundness of the doctrine held in these columns that while the Ben Davis is a prolific bearer, a fine keeper and a good looker, it is not desired by families who want apples to eat. An era of discrimination has set in and apple growers who are first to respond to its effects will be the first to benefit by growing choice fruit. Read Edwin Hiehl on "Changing Trees" in "Horticultural Talks" for Aug. 13; it fits the Ben Davis case.

We scarcely need to state that we do not endorse every opinion set forth in contributions appearing in this paper. The fact that diverse views are frequently expressed by our correspondents shows not only this, but that within the limits of propriety the RURAL WORLD is a forum where every man who has convictions on agricultural affairs may obtain a hearing. God gave man a brain to think with and only by the independent exercise of this divine gift can any individual hope to grow into good citizenship. "From every man, according to his ability, to every one, according to his needs," will continue to be the policy of the RURAL WORLD. That people are the most enlightened who learn to know the truth from the false. "And ye shall know the truth, and the truth shall set you free."

There is a prospect that the efforts of President Roosevelt to effect a compromise by arbitration between the mine owners and the workmen in the great coal strike will be rewarded. To an unbiased mind both parties to the controversy are responsible—that is to say, both are right and both are wrong. The laborer has an inherent right to strike, but he commits a moral wrong and a strategic blunder when he resorts to violence. The mine owner is considered right in his position of independence, every man having the right to run his business unhampered by others, and he is decidedly wrong in his denial of obligations to the whole people, by whose suzerainty and protection he is permitted to do business. As one of the results of this strike the question of the "rights of property" and "vested interests," indeed, the whole matter of inherent title to lands and wealth will receive a much-needed airing, and the question of the superiority of the right of the individual by prior possession or purchase, over the right of the people by virtue of public necessity or expediency, will receive more light. If we consider the constitutional right of every man to "run his own business" it is well to remember the qualification, which is—"so long as he does not infringe upon the rights of others." No coal operator can under this law make a nuisance of his business or commit acts of aggression, just because it pleases him. And as the anthracite operators do not show clearly that they have done their whole duty by their workmen they fall to prove their case before the popular tribunal. And it begins to look as though they were "working" laborer and consumer alike for selfish ends. If the owners cannot or will not operate the mines a great many people are going to advocate confiscation and government control. Paternalism is a dangerous doctrine for a republic to tamper with, and confiscation is an extreme measure. Let us hope both parties will make concessions and an agreement speedily arranged.

me that what little honey he saved from 400 colonies is being bought very rapidly. In September I took a buggy ride across our county and over into Knox and Scotland counties upon a mission of visiting and of seeing the country when it was enjoying extra fine weather. One feature which attracted especial attention is the rapidity of the telephone growth in its relation to farm life. Telephone lines are spreading out in all directions and all main roadways are being decorated by them, and lines are stretched right across fields. Then another pleasant arrival is the coming of rural mail delivery. All these elements of progress are blessings, and they help to break up the inconveniences of farm isolation. There is a blending of the urban and the suburban. On my journey I observed what a wealth of wild flowers beautified roadways and forest lands. The asters and the golden rods were especially beautiful, and along the valley of the North Platte I noticed several clusters of the closed gentians. JASPER BLINDS.

Horticulture

HORTICULTURAL TALKS.

ABOUT SAMPLE GRAFTS.—It has been my pleasant duty to mail a good many packages of late, containing sample buds and grafts, to the readers of the RURAL WORLD. To those who receive such a package, I would say that buds and grafts need no wax; but all grafts above ground should be well wrapped, above ground to cover all cut surfaces, not forgetting to put a little on the end of each graft. Each sample sent is marked in such a way that the receiver can tell what it is best used for; and in every lot one graft is wrapped in wax, so that she may learn with Ruffin's material is like. Twice as much wax as beeswax and twice as much beeswax as tallow melted together makes a good grafting wax. This may be applied with a brush while warm, or pulled into sticks like molasses candy and applied with thumb and finger.

WILD GOOSE PLUM CONFUSION.—It is not infrequent to hear of someone having Wild Goose plum trees that never bear, while others having the same variety, under same conditions, set fruit regularly. Now the way I solve this is, that Wild Goose and Miner being very similar, both in the appearance of fruit and manner of growth, the latter is sometimes substituted for the former, Miner, being of the nature not to bear alone, causes, when substituted, the Wild Goose confusion.

STRAWBERRY NOTES.—By this time the rows should be filled out full from one end to the other. Our frequent rains have been favorable for filling out gaps with plants from parts of the rows where there were plants to spare. The best now are perfectly free from weeds, and right here let me say that one of the worst weeds in a strawberry patch is the strawberry plant. By this I mean that rows should be kept narrow and that plants should not stand closer than four inches apart. If thinking is necessary it should be done now, before the mulch goes on. Also, if you wish to set a new bed next spring with plants taken from along the sides of wide rows, take the plants up this fall and set them close together in a little bed to themselves.

Not only is such a practice an advantage by having the plants in shape so that they may be bidden earlier in the spring, but the fruiting bed should not be disturbed after the mulching is put on. The plant bed should be mulched to prevent heaving. The fruiting bed should be mulched early to maintain an even temperature, or in other words to make freezing and thawing more gradual. Good, clean wheat straw is about the best mulching when one considers that it is the most convenient to handle, but unfortunately this is not always available. Corn stalks make a pretty good mulch, especially when shredded. If not shredded the stalks should be placed lengthwise between the rows, so that they will not be so much of a hindrance to the plants. An excellent mulch is forest leaves, with a few cornstalks to hold them in place. Both cornstalks and leaves have the advantage of containing no seed to grow and be a nuisance during the fruiting season. I have seen fields of strawberries covered with forest leaves, and full of wheat and chest that the berry crop was almost ruined thereby.

THE WEATHER.—A heavy frost on the night of October 13 caught us with a few hundred bushels of seed sweet potatoes that were left lying out in the field to be hardened by the sun. We expected the frost, but had too many out to get them all in time. This is some loss, of course, though not an entire loss, as sweet potatoes are a very good food for hogs, being not far from corn as a fattening product.

EDWIN H. RIEHL.
North Alton, Ill., Oct. 14, 1902.

THE BEN DAVIS IS DOOMED.

EDITOR RURAL WORLD: The current receipts of apples in this and other leading markets of the West at present, and for some time past, show that over nine-tenths of the receipts are of the Ben Davis variety. On last Saturday four barrels unloaded on our levee 16,000 barrels of apples—fully three-fourths of the total from Illinois, and the remainder from Missouri. A canvas of the subject among the receivers disclosed the fact that 9,500 barrels were Ben Davis; and railroad receipts show a similar record. Now this proportion is out of all reason, greatly to the detriment of the apple industry and an injury to the growers at large.

For years the Ben Davis has been found a profitable apple, from a commercial standpoint, and this has led to a heavy run on the nurserymen for such trees. The demand not only continued without abatement, but rapidly increased to the extent of all the better sorts, and we are thus confronted with the startling fact that a large number of the best varieties grown had to give way to one of the poorest varieties, an apple hardly fit to eat or cook, and yet every market in the entire Southwest is now flooded with it. The inevitable result is at last before us, as the Ben Davis is now selling at figures that average only a trifle over half what the better sorts are bringing. To illustrate, let us quote some of Saturday's sales, when the receipts were the largest and prices the lowest of the season. While rarely choice Ben Davis could be had on the levee or railroad depots at \$1.50 a barrel, we saw a lot of fancy Huntsman's Favorite from H. L. Graff, Murphysboro, Ill., that sold at \$2.50 a barrel, and another lot, same variety, from same shipper to-day at \$2.25 per barrel. The average sales, however, of this variety were \$2.00 to \$2.75. Grimes' Golden and Jonathan, \$2 to \$2.50; Beauty and Willow Twig \$2 to \$2.50; Winesap, Northern Spy, Missouri Pippin, Gano and similar sorts about \$2 per barrel.

A more discouraging future is still in store for the Ben Davis, for most of the orders coming in now for apples request no more Ben Davis. Even the country merchant, who orders only five to ten barrels, almost invariably adds: "Don't send me any Ben Davis." Thus much lower prices for it seem assured, while the other sorts, so much more desirable, will not suffer by the general decline, because they are wanted by the trade everywhere.

Three-fourths of the receipts are now purchased by the speculators for future markets. The cost of cold storage (50 cents a barrel for the season) is unfortunately as much on this common apple as on the most varieties grown, and when we add the two drayages involved (going and coming) we have 90 cents to add to the low prices prevailing now for the best grades of Ben Davis \$1.50 per barrel, and withdrawn from storage we

have as first cost \$2.10 a barrel, a sum many of the speculators declare they will not bring.

Most of the Southern cities, hoodwinked for years by the size and color of the Ben Davis, are realizing at last that there are much better apples and the consumers are willing to pay more for them, and this variety is gradually but surely finding its proper level of value. Nurserymen everywhere should prepare for the future through smaller supplies of the much lauded Ben Davis, and far more of the better sorts. The agricultural journals should also give timely warning to their readers—the fruit growers, to the nursery trade and others interested—and inform them that public taste is improving, that the Ben Davis is doomed, and even for commercial purposes fast losing caste. The only hope in the future for the Ben Davis is in short crops or great scarcity of apples—when nothing better can be had.

P. M. KIELY.
St. Louis, Oct. 14, 1902.

DO NOT OVERLOOK THE PECAN.

EDITOR RURAL WORLD: In an article recently published in "Forest and Stream" attention is called to the increased destruction of our woodlands on account of the scarcity of coal. It is also noted, with regret, that even beautiful shade trees, in large numbers, are sacrificed—converted into fuel.

The Atlanta "Journal," in commenting on this distressing condition, says: "The only comfort that the intelligent citizen can take from this situation is that it may prove a blessing in disguise by arousing the people to the wisdom and the necessity of planting new forests and giving better attention to the old ones. There is in this condition also a hint of the possible profit that may accrue from tree planting where conditions like those we now endure may arise in the future."

The lesson to be learned from the situation is to plant trees, and among the kinds suitable for general planting over a wide area of our country none can be recommended more highly than the pecan. Its large size, symmetrical shape and majestic appearance render it one of the most desirable trees for the yard or lawn.

Why not combine the useful with the ornamental and plant the pecan where shade is wanted? In the fall of the year, when sunshine is no longer disagreeable, the trees will come in with their bountiful cargoes of delicious nuts that will be a source of both pleasure and profit.

In forest planting, why should the pecan be overlooked? Being of the same genus as the hickory, its wood is useful for all purposes to which the hickory is applied.

Aside from its great value as a nut producer, the pecan, as a timber tree, is worthy of consideration by all advocates of forestry.

But the greatest profit from the pecan is obtained from its abundant yield of nuts, now in great demand, and for which new uses are discovered every year. We have a monopoly of this nut, and in a few years it will become an important article of export.

The culture of the pecan is just beginning to attract the attention of our people generally, but, from present indications, it will not be long until it will develop into one of the most important industries in the life of horticulture. The hardiness and productiveness of the tree, together with the great size to which it attains, render it especially desirable to persons who are seeking permanent, as well as profitable, investments.

The profits from large pecan trees are almost fabulous—as much as one hundred dollars' worth of nuts sometimes being obtained in a season from a single tree. For large returns from small investments I do not know anything more promising than pecan groves.

"There are now more reasons for general tree planting in all parts of the country than ever existed before, and we may expect that they will be heeded to a very great extent." Do not overlook the pecan.

S. W. PEEK.
Hartwell, Ga.

TO KEEP CIDER SWEET.

Please give me the best receipt for keeping cider sweet. W. D. L. Allen, N. J. [The usual preservative employed by cider makers is salicylic acid, about three to four ounces to the cask, thoroughly dissolved and mixed. We can't say that we approve of such anti-septics, as whatever will stop fermentation in the cider will, if taken in sufficient quantities, stop digestion (which is a kind of fermentation) in the stomach. Probably, if one drinks only a little, the effect is not markedly deleterious. Its later in the fall the cider is made, the better it will keep. For our own use we should be inclined to prefer the following method, employed successfully by one of our correspondents, though in the case of cider contains alcohol: Let the cider ferment until sufficiently acid to suit the taste; then bottle in champagne bottles of one quart each, putting one raisin and one clove in each bottle; cork

tight, wire securely, keep in cool cellar, and in three months it will be fit for use. Care must be exercised when opening to let the gas escape gradually, or your bottle will be emptied all over the room. It makes a drink superior to champagne, and does not make the hair pull after using. More than one raisin put in will burst any bottle made."—Country Gentleman.

SETTING APPLE AND PEACH TREES TOGETHER.

Of all the fruit trees that grow the peach will outdo the rest in production and in making good returns; but before we set out an orchard let us consider a few things, says the "Epitomist."

In the first place the peach must be cultivated as carefully as corn, and must not be left standing in soil if good crops are obtained. You will hear many a farmer say that back of his house is a peach tree that bears every year, and is in soil to boot. But let me say that the elements of the tree at the back door orchard are different from that in the orchard. While at the back door it gets the very best of fertilizers, in an orchard the soil will starve it to death.

There are theories as to planting an orchard that at first sound reasonable. These men advocating the practice of setting apple and peach trees together study the growth of these two trees. For the first six years the peach will almost double the apple, but at that age the peach has commenced to bear and its growth is much retarded, while at six the apple is only just in good condition to begin to bear.

At twelve years, when the peach is bearing, the apple has outgrown it and is taking the substance from the soil that the peach is most in need of, as well as shutting out the sunlight that is so useful for good fruit. The average life of the peach tree is from eighteen to twenty years. Good reasoning will show that every year from twelve until its usefulness expires that its chances to bear a full crop and good quality are much retarded, as the apple is getting a better growth every year, and one will find by close observation that they have fully one-third of the fruit that should have been in its lifetime. Therefore I would say when you want an orchard of peaches plant peaches alone and give them plenty of room—20x20 is not too far—with proper care and in most climates, in a reasonable latitude, you will be well paid for your trouble.

VINEGAR.

Wind-fall apples will make good vinegar if gathered up and run through a cider mill and then the juice thus obtained allowed to ferment. The water in the apples the stronger the vinegar they will make. If the apples are very green, a little sugar added to the cider before fermentation sets in will improve the quality of the vinegar very much. The cider should be placed in wooden or earthen vessels and set in the sun until fermentation has run its course. Then it can be stored in the cellar or other convenient place for use. Wind-fall apples in the Experiment Station orchard at Stillwater, Okla., were gathered July 31 and made into cider. These apples made an average of two and one-half gallons of cider to the bushel. In thirty days the cider had finished fermentation and was a vinegar of fair quality. Ripe peaches were gathered on the same date, and the juice pressed from them and placed in jars for fermenting. In thirty days this was a vinegar of a better quality than could be found on the local market.

PROPERTIES OF AN APPLE.

An apple contains a larger percentage of phosphorus than any other fruit or vegetable. The "Rural Californian" says this phosphorus is admirably adapted for the renewing of the essential nervous matter. The old Scandinavian traditions represent the apple as the food of the gods who, when they felt that they were growing old and feeble and infirm, resorted to this fruit for renewing their powers of mind and body as well. The acid of the apple are also of signal use for men and women whose livers are sluggish in action. These acids serve to eliminate from the body noxious matter which, if retained, would make the brain heavy and dull or bring about jaundice or skin eruptions and other allied troubles.

The ancient habit of taking apple sauce with roast pork, rich gossamer, and dishes, is based on scientific reasons. The malic acid of ripe apples, either raw or cooked, will neutralize any excess of fatty matter engendered by eating too much meat. Fresh fruits, such as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach rather than provoke it. Their vegetable salts and juices are converted into alkaline carbonates, and which tend to counteract acidity. A good, ripe, raw apple is one of the easiest vegetable substances for the stomach to deal with, and the whole process of digestion being completed in eighty-five minutes. Besides these medicinal qualities of the apple, it has great virtue for local applications. The paring of an

apple cut somewhat thick is an ancient remedy for inflamed eyes, being tied on at night when the patient goes to bed. In France, a common remedy for inflamed eyes is an apple poultice, the apple being roasted and its pulp applied over the eyes without any intervening substance.

It is true that there is a great deal of difference of opinion concerning the apple, and its medicinal and food values. This is one of the extremely commendatory views. But that there is truth in it seems undoubted. All who have good digestion seem much benefited by a free use of raw apples. Those who suffer from such kind of indigestion as is affected by acids seem to be unable to digest raw apples, but anyone can eat them, particularly if they do not use too much sugar in cooking. Don't depend upon the malic acid neutralizing an excess of fatty matter in meat; better not eat an excess of fatty matter; just enough is better, and saves the energy which would have been used for digesting the excess for better work.

AGRICULTURE IN RURAL SCHOOLS.

There has been a great deal of talk lately in regard to the teaching of agriculture and horticulture in the rural schools. Doubtless great good can be accomplished in this way if there were teachers qualified for the work. But the so-called normal schools turn out too many drilled automata and do little in the real teaching of nature. If the country school teacher could all be given a short course in agriculture and horticulture at the State colleges of agriculture we might after a while have men and women prepared to take up the work in an elementary way in the rural schools. But as the short courses at these colleges mostly come in the winter months when the teachers are employed, there arises a need for summer schools for this purpose. These might be made a strong force in the progress of nature teaching. With teachers enthused for the work, there would soon come some application of what they have learned in the planting and beautifying of the rural grounds. There is nothing like the actual work in planting trees and flowers and caring for them to make children fond of nature and her products, and there is nothing better calculated to drive the young people from the farm than the comfortable and ugly schoolhouses and their ill-kept grounds. If the young people are interested in plant life they will then be apt to draw them to the farmers' institutes, and the institutes will never accomplish what they should in the education of the farmer till they catch him young enough.

—Practical Farmer.

The Aplary

WINTERING BEES.

EDITOR RURAL WORLD: The items of importance for the successful wintering of bees are good strong colonies, a vigorous queen, and plenty of well ripened honey.

We prepare our bees for winter in this way: When surplus boxes and other covers are removed from the comb, we put in a hive's device, which looks like four quarters of a keg hoop, nailed to a piece of iron hoop, which makes a little round nest for the bees to cluster in. Then spread over this a new sheet of Indian head muslin, cut large enough to reach over the hive; then, when the cap is shut down, the bees can get up into it. Our chaff cushions have been in use for a good while, so we put in the cap a nice bed of dry maple leaves and then the cushion. A piece of section is slipped under the cover, so as to have fresh air circulate above the packing. If the cover shuts down straight, the breath from the bees will cause damage, and if it is cold snap, freeze hard. If this is followed by a thaw, the ice melts, runs down and the bees are wet. If this condition is followed by freezing weather, the bees will be frozen in a cluster and the colony ruined.

When are so penetrating bees should be protected in some way either by a wind, close fence, buildings, or protection made with corn fodder or straw. Bees can stand a low degree of temperature if they are only dry.

MRS. L. HARRISON.

ALSIKE CLOVER FOR HONEY AND FOR SEED.

It is a little strange to me that more thought has not been given to alsike clover by the bee-keepers of this or other States, says a writer in "Canadian Bee Journal." We find frequent mention of alfalfa (which many fear will not soon be of little use to bee-keepers, simply because the growers thereof are cutting it much earlier than formerly), but no mention of alsike. As a honey plant it certainly takes a prominent place, usually secreting a good supply of nectar which our bees can easily reach. I say "usually" because in this locality at least one season they did not. I could not understand it. The weather seemed favorable and never so many blossoms, and yet within a quarter of a mile of the home place yet not a bee could be found there. The perfume wafted on the breezes from this field was very fragrant, and we could smell it for a long distance when on the windward side. Not sufficient alsike is grown in this neighborhood, however, so I cannot speak much about it. I am sure, however, that passing through some places where much of it is grown. I visited a bee-keeper, Mr. Joseph Marks, northeast of Toronto, last year. Mr. Marks manages the bees, and his son looks after the farm. It was from the latter that my eyes were opened to the great profit on clover when grown for seed, apart from its value as a honey plant. In the year 1900 he grew some thirty acres and made \$400 out of the seed alone. Last year he had at that time thirty-five acres in his barn and he expected to make some \$1,200 out of it besides the hay. The latter is not worth as much as if cut earlier, but certainly is as good as straw. I was not surprised when told that he quickly paid off the mortgage—good land could be bought and paid for in one season from alsike seed alone. It seemed to me that there is more money in it than in bees, and the beauty of it is when the bee-keeper grows it he has a decided advantage over those who have no bees—for the bees help the alsike and the alsike helps the bees. Four bushels to the acre I am told is a fair yield, but where bees are plentiful five bushels is nearer it. There is another thing I cannot understand, how why it is that the demand is so great and the price so high for this seed. I have been told that considerable is exported to England. There is one pleasing feature about it, which is, that those who grow it are not slow to see the value of bees in se-

curring a good crop of seed. A friend some five miles distant is about to sow it for seed, and I was quite encouraged the other day by him saying: "I wish you would bring out some of your bees to my place." In these days of lawsuits and threatenings it is quite refreshing to have people talk after this fashion. There is one thing I observed, that bee-keepers near these alsike fields get lots of honey. Talk about sweet clover or catnip and such like, but I think they "are not in it" alongside of alsike when grown for seed, and if I had more land I would put it to the test. There is considerable grown around Cannington, and as consequence good returns there from the bees. Apart from the honey what crop is there grown, with as little trouble as alsike, that will give from \$30 to \$35 per acre besides the hay? The bee-keeper who farms and does not grow alsike is behind the times in my opinion.

MIDDLING WITH BEES.

Too many amateur bee-keepers consider that their colonies will not do well unless they are continually looked after and their business affairs scrutinized every few days, a writer in "Pacific Homestead" says. No practice is so productive of restlessness and dissatisfaction among the industrious little honey gatherers than constant meddling with the hives. Every time they are disturbed in their labors they become excited, and do not again get down to work for several hours, and often a whole day elapses before they get in their normal state again. This not only causes them to lose time in the honey harvest, but it also cultivates a bad temper, and a new hand at the business reads in his handbook or in the columns of the bee-keeping paper that certain things are needful under certain circumstances, and he hastens to put the advice into practice, when it is probable that his colony did not stand in the slightest need of the manipulation suggested. There are numerous methods of discovering when anything is wrong with the bees without opening the hives. These indications should be learned, and when they are present the hives may be investigated and not before. The most successful colonies are those which are manipulated the least, and we know of many profitable bee yards which the owner seldom enters, except in swarming time, when honey is to be taken out or queens introduced. Of course, when disease is present, or when some necessary work is to be performed, the keeper should be sufficiently well informed to know the fact and apply the remedy demanded. While damage is done to bees by disturbing them in the summer, we believe, it is much greater when they are meddled with in the winter. The misdirected kindness of the novice will often result in uniting them to do good work all the next season, and in many cases, be the cause of the destruction of the entire colony. If they need feeding that should be attended to while the weather is still warm, and they should not be again molested until spring opens.

CARE IN SELLING EXTRACTED HONEY.

Since extracted honey was first put on the market, there has been a good many ups and downs in the sale of it, largely in consequence of the manner and care of putting it up, written by a correspondent in Orange Judd Farmer. A few years ago a friend living near by succeeded in building up a very large business in extracted honey, by going to the larger towns, introducing his goods by sample and selling in quart glass fruit cans. By having his goods up to standard he now has a large and paying trade which he has gained through honest goods at honest prices.

Almost any bee-keeper could sell his honey crop, either extracted or comb, in this way if he employs energy and a little business tact. To keep extracted honey, when the price is low on the market, the honey market is never very active before cold winter sets in, is sometimes quite a question. The best way is to seal it while hot in self-sealing jars or bottles. Both extracted and comb honey should be kept in a dry room, and much better if at the same time it is frost proof, when dew or summer fumes on the surface of honey, it is absorbed and in time will cause it to sour and ferment.

Jars and bottles that are used are sometimes too hastily washed and enough water is often left in them to cause this trouble. Quite a large trade uses the jelly (unbleached) and one-pound sizes. The tumbler is made honey tight by laying a piece of soft paper under the cover and pressing the lid down firmly. In whatever shape you sell honey, make it look its best and attractive to the eye. Get private buyers if possible, for the public goods so many of your customers will remain with you. Use an attractive label.

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A pleasant home, four acres, dwelling, 18-foot poultry house, barn, feed house, 1000 bushels of corn, 75 miles west of St. Louis, on Wabash R. R. Now in use for breeding fancy poultry. Particulars on application. W. E. HARRISON, POULTRY RANCH, New Florence, Mo.

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To Prove what Swamp-Root, the Great Kidney, Liver and Bladder Remedy, will do for YOU, Every Reader of Colman's Rural World May Have a Sample Bottle Sent Free by Mail.



Among the many famous cures of Swamp-Root investigated by COLMAN'S RURAL WORLD the case we publish this month for the benefit of our readers, speak in the highest terms of the wonderful curative properties of this great Kidney, Liver and Bladder Remedy.

Mrs. H. N. Wheeler, of 117 High Rock St., Lynn, Mass., writes on Nov. 2, 1901: "About 18 months ago I had a very severe case of kidney trouble. I was extremely sick for three weeks, and when I really was able to leave my bed I was left with excruciating pains in my back. My water at times took very like coffee. I could pass but little at a time, and then only after suffering great pain. My physical condition was such that I had no strength and was all run down. The doctors said my kidneys were not affected, but I felt certain that they were. I followed up that bottle with another, and at the completion of three days I was completely cured. My strength returned, and to-day I am as well as ever. My business is that of a carpenter. I am on my feet a great deal of the time, and have to use much energy in getting around. My cure is therefore all the more remarkable, and is exceedingly gratifying to me."

Mrs. H. N. Wheeler.

The mild and extraordinary effect of the world famous kidney and bladder remedy, Dr. Kilmer's Swamp-Root, is soon realized. It stands the highest for its wonderful cures of the most distressing cases.

Weak and unhealed kidneys are responsible for more sickness and suffering than any other disease, therefore, when through neglect or other causes, kidney trouble is permitted to continue, fatal results are sure to follow.

We often see a friend, a relative, or an acquaintance apparently well, but in a few days we may be grieved to learn of their severe illness, or sudden death, caused by that fatal type of kidney trouble—Bright's Disease.

The Effect of the Sample Bottle of Swamp-Root.

"Having heard that you could procure a sample bottle of Swamp-Root, free by mail, I wrote to Dr. Kilmer & Co., Binghamton, N. Y., for a sample bottle and it was promptly sent. I was so pleased after trying the sample bottle that I sent to the drug store and procured a supply. I have used Swamp-Root regularly for some time and consider it one of the best remedies I have ever used for kidney and bladder trouble. I think my trouble was due to too close confinement in my business. I can recommend it highly for all liver and kidney complaints. I am not in the habit of endorsing any medicine, but in this case I cannot speak too much in praise of what Swamp-Root has done for me."

H. F. Johnson, Springfield, Ohio, Feb. 24, 1901.

EDITORIAL NOTE.

If you are sick or "feel badly," begin taking the famous new discovery, Dr. Kilmer's Swamp-Root, because as soon as your kidneys are well they will help all the other organs to health. A trial will convince anyone.

You may have a sample bottle of this wonderful remedy, Swamp-Root, sent absolutely free by mail, also a book telling all about Swamp-Root and containing many of the thousands upon thousands of testimonials received from men and women who owe their good health, in fact their very lives, to the great curative properties of Swamp-Root. In writing to Dr. Kilmer & Co., Binghamton, N. Y., be sure to say that you read this generous offer in the COLMAN'S RURAL WORLD.

If you are already convinced that Swamp-Root is what you need, you can purchase the regular fifty-cent and one-dollar size bottles at the drug stores everywhere. Don't make any mistake, but remember the name, Swamp-Root, Dr. Kilmer's Swamp-Root, and the address, Binghamton, N. Y., on every bottle.

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POLAND CHINAS.
October 25.—Sensitaff Bros., Brookfield, Mo., Poland, Roscoe, Ill.
October 30.—Hart & Minnie, Poland China, Edinburg, Ill.
October 31.—Hedges & Walker, Poland China, Pana, Ill.
November 1.—Wm. Plummer, Barclay, Kan.
November 14.—Harry E. Lunt, Burden, Kan.
November 15.—A. B. Mull, Iola, Kas., Poland Chinas.
December 5.—J. D. Jesse, Browning, Mo., Poland Chinas.
BERKSHIRE SWINE.
November 7.—Manwaring Bros., Lawrence, Kan.
November 12.—Kansas Breeders, Manhattan, Kan.
November 13.—Combination sale Berkshire, at Manhattan, Kan.
Nov. 6, 1902.—Combination sale, East St. Louis, Ill.; Manager, C. H. C. Anderson, Carlinville, Ill.
Dec. 3, 1902.—Combination sale Berkshire, Manager, A. J. Lovjoy, Roscoe, Ill.
Clerk, Charles F. Mills, Springfield, Ill.
Feb. 13.—Biltmore Farm's annual sale of Berkshire brood sows, Biltmore, N. C.
SHORTHORN SHOWS AND SALES.
October 20.—Central Mo. Shorthorn Breeders' Assn. Combination Sale, at Moberly, Mo. E. H. Hurt, Sec., Clifton Hill, Mo.
Oct. 21.—J. C. Hall, Hallsville, Mo., sale at Centralia, Mo.
Nov. 11.—J. Littrell, E. S. Stewart, Dr. J. F. Keith and J. H. Cottingham, at Sturgeon, Mo.

HEREFORDS.
November 15.—Marshall County (Kas.) Hereford Breeders' Association, Hereford; E. E. Woodman, secretary.
December 4.—American Hereford Breeders' Association, Chicago, Ill. Week of International Live Stock Exhibition.
December 6.—J. E. Logan and Benton Gabbert & Sons, Hereford, Kansas City, Mo.
December 10.—T. H. Pugh, Hereford, Kansas City.
January 20.—1902.—T. F. B. Sothern, Hereford, Kansas City, Mo.
January 23.—Combination sale of Herefords at Chicago.
January 25.—1902.—C. W. Armour and Jas. A. Funcher, Hereford, Kansas.
January 28.—C. A. Jamison and others, Peoria, Ill., at Chicago.
February 10, 11, 12, 1902.—C. A. Stannard and others, Hereford, at Oklahoma City, O. T.
February 24.—1902.—C. A. Stannard and others, Hereford, Kansas City, Mo.
May 4, 1902.—Colin Cameron, Hereford, Kansas City, Mo.

ANGUS, GALLOWAYS, SHORTHORNS AND HEREFORDS.
April 7.—1902.—W. C. McGavock, Mgr., Aberdeen Angus, Kansas City, Mo.
SHORTHORNS AND CLYDESDALES.
November 6.—Thos. Andrews, Cambridge, Neb.
SHORTHORNS, HEREFORDS AND ABERDEEN ANGUS.
October 31.—J. C. Hall, Hallsville, Mo., and J. B. Brown, Mexico, Mo., at Centralia, Mo.
October 30.—P. T. Bates, Bates City, Mo., sale at Odesa, Mo. Short-horn.
October 23.—Chenault Todd, Fayette, Mo.
November 5.—W. W. Pollock, Mexico, Mo., Short-horn, Poland-China Hogs, Saddle and Harness Horses.
Nov. 7.—E. T. Letton & Son, Walker, Mo., Closing out Trotting Horse Sale.
November 6.—S. P. Emmons, Mexico, Mo., Short-horn.

November 10.—Branstetter, Robinson and Wright, Short-horn, at Vandalia, Mo.
November 11.—J. F. Keith, E. S. Stewart, Dr. J. F. Keith and J. H. Cottingham, at Sturgeon, Mo.
November 12.—T. W. Ragdale, T. A. Bailey and Wm. R. Turner, at Shelby, Mo.
November 13.—Purdy Bros., Short-horn, at Harris, Mo.
December 16.—F. M. Gifford, Short-horn, Milford, Kas.
November 19.—Cooper County Short-horn Breeders' Association, Short-horn, Buncheon, Mo.
November 20.—North Missouri Combination Sale Association, Trenton, Mo.
November 23.—Short-horn, W. P. Harned and F. M. Marshall, Kansas City, Mo.
December 6.—Combination sale, J. D. Jesse, Mgr., Browning, Mo.
December 16.—Gifford Bros., Milford, Kan., at Manhattan, Kan.
February 10.—Col. G. M. Casey, Clinton, Mo., and T. J. Wornall & Son, Liberty, Mo., at Kansas City.
February 17.—D. C. Kellerman & Son, Mount City, Kan., at Kansas City.
February 18.—I. M. Forbes & Son, at Chicago, Ill.
H. J. Hughes, Secretary.

STOCK NOTES.

On Nov. 12, at Shelby, Mo., the estate of T. W. Ragdale, T. Weldon Ragdale, W. R. Turner and T. A. Bailey will sell a draft from their farm of a good Scotch topped cattle, either sired by Galahad's Pride 129688, Prince Rupert 104965, Roan Chief 24 141253, Victoria Baron 106859, Victor M. 129023, Senator Knight 168642 and British Jubilee 96488, and tracing to the following imp. sires: Minna, Rose of Sharon, Amella, Daisy, Britania, Illustrious, Fashion, Rosemary, Rosamond, Bright Eyes, Ruby, Adelaide and Cleopatra. There will be no barren or doubtful breeders offered in this sale, and all cows old enough will either have calf at foot or be bred to within a few days. You will find the offering a good one of cattle and some extra good individuals as well. Send to Mr. T. A. Bailey, Shelby, Mo., for catalog. Remember the date, and attend the sale.

A combination sale of Short-horns consigned by members of the Central Missouri Short-horn Association will take place at the Fair grounds, Moberly, Mo., on Thursday, the 30th inst. The stock consists of 21 cows and heifers and 23 bulls. All the females will have calves

Calves That Scour

Get run down, even if they do not die. Good Farm Calf Scour Cure and Digestive Powder, used in connection, cure scour promptly; keep calves from shrinking. \$1 and \$2.50. Sent to any railroad express point. H. C. Lewis, Mass.

SHORTHORN CATTLE SALES!

AT MEXICO, MISSOURI.

Wednesday, November 5,

Pollock's closing out sale will be held at Littleby Station, 5 miles east of Mexico, on the Chicago & Alton Railroad. Having sold my farm I will sell my entire herd of Bates, Scotch and Scotch-Topped Shorthorns—40 head of good ones. Also saddle horses, work mules, pure bred Poland-China hogs, farm implements, etc. Sale begins at 10 o'clock a. m. Lunch at noon. Cattle sold in the afternoon. A rare chance for bargains.

For further information and catalogue, address

W. W. POLLOCK, Mexico, Mo.

Thursday, November 6,

At Hisey & Lee's barn I will sell 40 head of the best bred Scotch and Scotch-Topped Shorthorns to be offered by any one man in Missouri. Elegantly bred and beautiful young Cows, Heifers and Bulls.

CATALOGUES READY. A Postal Will Bring One.

S. P. EMMONS, MEXICO, MISSOURI.

COMBINATION SALE

OF

SHORT-HORNS

At STURGEON, Mo., Tuesday, November 11th, 1902.

40 HEAD

From the Herds

40 HEAD

J. J. LITTELL, Sturgeon, Mo.

DR. J. F. KEITH, Sturgeon, Mo.

E. S. STEWART, Sturgeon, Mo.

J. H. COTTINGHAM, Clark, Mo.

Included in this sale are several Pure Scotch of the Cruickshank Violet, Butterfly and Sybil tribes. The balance are Scotch-topped with from two to four Cruickshank tops. The females of suitable age will either have calves at foot or will be bred to one of the following Cruickshank bulls: Scotland's Crown 138994 by Imp. Lavender Lad 119377, Proud Robin 177806 by the \$1,000 Robin Adair 151303, or Hampton's Choice 177802 by the great Imp. Merry Sale under cover.

For catalogue giving full particulars, address

E. S. STEWART, STURGEON, MO.

Auctioneers, COLS. J. W. SPARKS and R. L. HARRIMAN.

50 REGISTERED SHORTHORNS.

We will sell at public auction a draft of fifty head from our herds of Registered Short-horns, at Worland's Livery Barn, Shelby, Missouri, on

Wednesday, November 12, 1902.

The draft will consist principally of Scotch-topped cows and heifers, either sired by one of cows sired by such grand Cruickshank bulls as Galahad's Pride 129688, Victoria Baron 104965, Prince Rupert 104965, Victor M. 129023, Roan Chief 24 141253, Senator Knight 168642 and British Jubilee 96488, and tracing to the following imported cows: Imp. Minna, Imp. Rose of Sharon, Imp. Amella, Imp. Daisy, Imp. Britania, Imp. Illustrious, Imp. Fashion, Imp. Rosemary, Imp. Rosamond, Imp. Bright Eyes, Imp. Ruby, Imp. Adelaide, and Imp. Cleopatra. There will be no barren cows, and a few good bulls will be offered. The females of suitable age will either have calves at foot or will be bred to one of the following Cruickshank bulls: Scotland's Crown 138994 by Imp. Lavender Lad 119377, Proud Robin 177806 by the \$1,000 Robin Adair 151303, or Hampton's Choice 177802 by the great Imp. Merry Sale under cover.

For catalogue giving full particulars, address

T. WELDON RAGDALE,

WM. R. TURNER,

T. A. BAILEY.

Col. JAMES W. SPARKS, Auctioneer, assisted by HARRY GRAHAM and LEE FRANCIS.

P. S.—A car load of bull for private sale.

ing an average test of over 430, the easy keeping qualities of the Red Polle, and it will be hard to find even a special dairy herd showing better results.

Reference to Capt. Hill's herd brings to mind an incident connected with the Red Polle breed which is a further proof of their good qualities. Just at the time when Capt. Hill sold his entire winning herd to Mr. Borden, a friend of mine interested in dairying and beef-raising in the middle South, wanted me to select the most suitable breed for his location and purpose. I recommended Red Polle, which he adopted, and with such satisfactory results that he not only disposed of all others, but at the first sale of young livestock held by Mr. Borden (producer of herd bought from Capt. Hill) secured the highest price for his Red Polle. The price was, I think, over \$500. In my opinion this single incident speaks volumes for the good qualities of the Red Polle.

As to their value as a beef-producing breed, there is no lack of proof. The records of fat stock exhibitions in Britain and America testify to their sterling qualities as a beef animal. Several times a steer of this breed has taken championship honors at Smithfield, London. At the last Christmas club show a Red Polle was the heaviest beast of his age, weighing 2,137 pounds at 30 months. The breed's cup-winner at Norfolk and London, a heifer, weighed 1,273 pounds at 28 months. At the same exhibition a couple of year-old Red Polle steers showed the highest daily gain of any animals of the same age, averaging 2.38 pounds, and a Red Polle steer dressed the highest percentage of live weight of any animal slaughtered. Another steer weighed 1,375 pounds at 18 months, and at 30 months 1,735 pounds. This steer was the producer of a cow having a milk record of 14,189 pounds. Can any other breed do better?

Passing to our own fat-stock exhibits, though owing to the great demand for Red Polle bulls for crossing, few steers are available, we find the same high standard of excellence. Regarding a block contest a western journal says:

"An interesting feature of the exhibit was the presence of the carcasses of two Red Polle steers, the two-year-old Star of Capt. V. T. Hill, and the yearling Joe of J. W. Martin. Joe made a carcass that would have delighted a country butcher. Star presented one of the most beautiful and profitable carcasses on the books. He had roasts of equal thickness to the champion, and much better marbled, with no excess of fat."

The breed is known for its great prepotency, and wherever used in crossing a high percentage are not only hornless but carry the Red Polle color and type. Even when used in the Hereford, itself a strongly prepotent breed, the Red Polle characteristics prevail in the majority of the produce. With all these good qualities combined in one breed, it is surely the ideal one for eastern farmers to use in a return to beef raising. There need be no hesitation to invest in such stock. As milkers they have few equals; as feeders they are unequalled, and on the block no

other breed has surpassed them. For crossing purposes to grade up a herd, Red Polle will show results that even the famed Shorthorns cannot beat.

Take Your Choice
The Generaly useful, good temperate, early maturing, and easy to handle, and other qualities, make this breed a favorite with all who are interested in dairying and beef-raising. Write him again if you want anything at all prices. Send for catalogue. GEO. WESTERN, Clifton Hill, Mo.

FOR SALE.
Three fine Shorthorn Heifers and one Bull for \$75.00, graded. Fine Registered Berkshire Pigs, ready to breed, cheap. 100 Pure Bred Turkeys at low prices. Shoemaker & Co., Harrodsburg, Ky.

SHORTHORN CATTLE.
Berkshire Hogs, Angus Cows, Light Brahms and Golden Seabird Chickens. Stock and eggs for sale. Call on or address
J. J. LITTELL, Sturgeon, Mo.

SHORTHORN HEIFERS.
Registered cows and heifers for sale—120 head in herd. Write for prices.
W. H. FULKERSON & SONS,
Jennett, Mo.

H. W. KERR,
BREEDER OF RED POLLED CATTLE.
Good young bulls for sale. Call on or address
Auctioneers.

R. L. HARRIMAN,
BUNCEON, MO.,
Live Stock Auctioneer.
Sales made anywhere on earth. Correspondence Solicited.

J. ZACK WELLS,
Live Stock Auctioneer,
Marshall, Mo.
Thoroughly posted on pedigrees and values. Am selling for the best breeders in America. Terms reasonable. Write me before claiming dates.

W. D. ROSS,
OTTAWA, MO.,
Live Stock Auctioneer.
Your patronage solicited. Terms reasonable.

2,000 MORE HIGH-GRADE FEEDING AND BREEDING CATTLE

will be sold at Auction at

WEAVERGRACE FARM

Wednesday and Thursday, Oct. 29 and 30.

Over half of this offering will be high-grade HEREFORD SHORT-HORN and ANGUS calves, steers predominating. The same description for cattle sold at Weavergrace Oct. 7 and 8 apply to these cattle. 250 two-year-old steers, 200 two-year-old heifers, 450 yearling steers, 400 yearling heifers, 400 steer calves, 300 heifer calves. It has taken years of experience, months of time and lots of expense to locate these cattle. They are the cream of the entire range. Buyers get the benefit of this all in one day without riding thousands of miles on horseback, in buggy and train. They will be sold—rain or shine—in lots of twenty or twenty-five, uniformly graded as to sex, age, quality and breed, in the new sale pavilion at

WEAVERGRACE HEREFORD FARM,

Wednesday and Thursday, October 29 and 30.
Sale begins at 1 o'clock p. m. each day. Special Chicago, Milwaukee & St. Paul trains between Chillicothe and Weavergrace side-track on sale day. Terms cash. Parties unknown to Mr. Sothern should bring bank drafts or letter of credit. For further particulars address

T. F. B. SOTHAM, Chillicothe, Mo.

N. B.—All the cattle offered in this sale are selected and high-grade, sorted at farm for uniformity and will reach Weavergrace without being injured in transit or stock yards by constipating prairie hay or other rough treatment. They come direct from the prairies of the West to the blue grass of Weavergrace by special fast freight trains and will be loaded on cars free and shipped to buyers in best possible condition. Lowest freight rates secured to any railroad point. Believing that I can supply better stock, in better condition, at prices (quality considered) that defy competition, I confidently and cordially invite the attendance of all lovers of good cattle. You are also invited to inspect the Weavergrace pure-bred Hereford herd, and especially to see the four best bulls I ever bred.

43 CENTRAL MISSOURI 43

Shorthorn Breeders' Ass'n

Combination Sale

AT

FAIR GROUNDS, MOBERLY, MO.,

THURSDAY, OCT. 30, 1902.

Consisting of 22 Bulls and 21 Cows and Heifers. All females old enough will be bred or have calves at foot. This consignment are all-Scotch or Bates topped Standard Families, and are consigned by the following breeders:

Jos. Combs, Linneus, Mo.
Thomas Huntsman & Son, Jacksonville, Mo.
E. H. Hurt, Clifton Hill, Mo.
W. E. McKinney, Cairo, Mo.
J. F. McKinney, Cairo, Mo.
Wilson Miller, Huntsville, Mo.
Isaac Miller, Huntsville, Mo.
Buchanan Bros., Moberly, Mo.
F. B. Harvey, Moberly, Mo.

All farmers and breeders are invited to attend this sale and inspect the cattle. For catalogue address

E. H. HURT, Secretary,
CLIFTON HILL, MO.

Cols. J. W. Sparks, R. L. Harriman and H. W. Graham, Auctioneers.

50 SHORT-HORNS 50

From the ASH GROVE HERD, at Fayette, Mo., Oct. 28, 1902, 84 Cows and Heifers and 16 Bulls.

Of this offering 15 are cows, of which 6 are three; others from 4 to 6 years; 8 two and 11 yearlings. The aged cows have all raised calves in the last year and are bred again to the Cruickshank bulls, Sir Charming 122667 and Captain Lavender 175119, some of them with calves at side and others well along in calf. All the two and yearlings old enough will be bred to Captain Lavender, some of them forward in calf. The bulls are a good useful lot; some choice ones among them; 10 are about a year old; 6 from 16 to 20 months. In making this offering we have gone into our best and taken things that we had intended to keep in the herd, as we desired to make this the best offering of our life's work as a breeder of Short-horn. Taking them all together they are an attractive lot of young and useful cattle—a business lot. All except three bred by myself from such families as Renick Rose of Sharon, Young Phyllis, Young Mary and Miss Severs, of the best breeding, purchased from breeders of good reputation. Our aim has been individual merit and choicest breeding. A glance at the catalogue will show the character of bulls I have used.

Free conveyance from Fayette to farm for parties from a distance. Special rates at Hotel Howard. Send for catalogue. Lunch at 12 o'clock. Sale at 1 p. m. sharp. Cols. R. L. Harriman, Geo. W. Sparks and R. L. Harriman, auctioneers. 24 miles on Missouri, Kansas & Texas R. R. 20 miles south of Hannibal, 20 miles south of Moberly, crossing of the Wabash; 17 miles south of Higgins, crossing of C. & O. R. R., and 40 miles north of Shelby, crossing of Missouri Pacific R. R. Address

CHENAULT TODD, Fayette, Mo.

PROTECT YOUR STOCK AGAINST BLACKLEG

By using "BLACKLEGINE," which is our well known Blackleg Vaccine ready for use, and applied with an instrument that costs only 50c.

PASTEUR VACCINE CO., LD., CHICAGO, NEW YORK, FT. WORTH, SAN FRANCISCO.

FOR SALE. 40 Registered Shorthorn Heifers from 6 to 8 months old—good ones—at farmers' prices. Young Mary, Rose of Sharon, Josephine, Phyllis, etc., families, and sired by Lochiel 119976, Scotch Minister 117294, Scotch Steward 178367. SAM W. ROBERTS, Pleasant Green, Mo.

RAVENWOOD HERD OF SHORTHORNS.
LAVENDER VIOLET 184755, Champion Bull Two Years in Succession. Winner of the Armour Trophy for best bull at the Kansas City show of 1900 and grand champion over all at same show, also grand champion over all at the Chicago International of 1901, heads herd sired by the Cruickshank Victor bull Royal Hampton by Harry Hampton. Bulls and heifers for sale. C. B. LEONARD & SON, Bell Air, Cooper County, Mo. Ed. Patterson, Manager. Telegraph and shipping station, Buncheon, on Missouri Pacific R.

COL. R. L. HARRIMAN,
COL. DOC. BIGGS,
CORT. STEUART, } Auctioneers.

A. B. HENSLEY
Montgomery City.

Home Circle

Written for the RURAL WORLD.
GOLDEN DAYS.

Oh, golden days of early youth,
The days of hope and trust,
When all the world's a glow with truth,
And ere the baneful rust
And cancer that in later years
Within the human heart appears
Oh, blessed time that knoweth not
The saddest truth of all—
The world is full of bitter rot
That makes sweet hope to fall.
Like blasted fruit upon the earth
From withered boughs in time of death.
The days when hearts were pure and true,
Untarnished with deceit;
The days before the mind ere knew
That life hath bitter sweet;
In all our lives were golden days
That shone like suns with brilliant rays.
Oh, that each heart might prove the truth
That all of life can be
As sweet as golden days of youth—
From vain deceptions free,
And filled with love and truth instead,
From shining tress to hearty bread.

W. V. WYTER S. HEYACRE.
Mt. Vernon, Ill.

Written for the RURAL WORLD.
SELF-SOWN VEGETABLES.

Our garden this year has been a perpetual delight and full of interesting surprises. A patch of beans, comprising several varieties, was cleared off to make place for fall turnips. The beans scattered, took root, grew without the least attention and perfected a crop of green beans equal in every respect to those so carefully planted and cultivated in the spring. The varieties were long, flat, stringless, the broad flat German wax, early Valentine and the bush horticultural cranberry.

The lettuce matured, dropped seed, and without any thought or care, we had a generous second crop. Radishes also—the Early Breakfast and White Lady Finger—scattered their seeds and gave us a new supply.

Curled parsley, self-sown, covers the bed, growing among the weeds cheerfully as if glad of the opportunity to thrive without assistance.

The most marvelous thing of all is the turnips. Several varieties sown on the 20th of July have matured seed, and those seed are coming up all over the patch. I doubt if any will grow larger enough to use, but unless a heavy freeze comes early we may be able to gather a crop from these self-sown plants.

This has been a remarkable year. I never remember to have seen one similar in thirty years' experience in Missouri. Usually August and September are dry months, too often July has little moisture, but this year even to the present time (Oct. 2) vegetation is green and luxuriant.

If one were disposed to find fault he might say, "Too much rain," but after last year's drought who shall dare to be critical? This year's Thanksgiving should be an unstinted returning of thanks to Him who is Lord of the harvest, as well as a time of reunion, feasting and general rejoicing.

MAY MYRTLE.

Written for the RURAL WORLD.
LETTER FROM ROSA AUTUMN.

When we write a letter and mail it we know in this life how much good that letter will do to the recipient. Only a letter, but what a world of good it holds. It is a precious treasure, a buoy to a sad or sorrowing or afflicted heart. Just such a letter I received a short time ago. A real heart to a sad heart just out of a severe attack of lung trouble. I often think there is nothing so precious to a lonely, sad heart as a kind letter from a true friend, one you have confidence in to believe is a true friend.

Mothers, if your son is away from home, write him a long letter; tell him how dear he is to his mother's heart, and how much you wish he was at home with you. Then tell him all about home; give him a detailed account of all the little "happenings," things you would hardly think worth relating to him if he were at home; you will find interest in them now that he is away among strangers. Just write it all down so it will occupy his mind for some time. It will do him a world of good. It will make him think of mother and home and draw him to them, and maybe keep him from evil companions. Mothers, never let anything prevent your writing "my letter" that your son is looking for. Oh, don't disappoint him. Oh, no, if you are sick or not able to write "that letter" get some one else to write it for you; never let your son look in vain for the expected letter.

And now a word to that son. Dear boy, whatever else you do, do not neglect to write your mother that letter she so much wishes to get from you—"her darling son." Tell her all your plans for the future, and, above all, make her heart glad by telling her how dear she is to you, and that you will be a man, a Christian, for her dear sake. "Write that letter" to mother. Letters are great and powerful things. Then how careful we should be how we write them.

Edith, you are a sensible girl, any one can see by your article in our Home Circle. Let us hear from you often. It will help to occupy your lonely hours in the country home.

Mrs. H. R. I wish you could see my lovely yard, now full of beautiful roses. "Oh, my, just look at those lovely roses!" is the exclamation of every one as they enter the yard gate.

Dye, I fear the "button" is a myth, dead in the shell for want of care! Where, oh where, is our "May"? Come to us, Ina, we want you so much.

DEAFNESS CANNOT BE CURED.
By local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure Deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube gets inflamed you have a running sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; and cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars, free.

F. J. CHENEY & CO., Toledo, O.
Sold by Druggists, 75c.
Hall's Family Pills are the best.

Well, I will have to say good-by for this time; I am tired. Love to our dear Home Circle, one and all, editors included.
ROSA AUTUMN.

Written for the RURAL WORLD.
A STUDY FOR PARENTS.

I recently had the privilege of entertaining in my home one of the successful poultry fanciers of the Empire State. His poultry had taken prizes in the great poultry shows of Madison Square Garden in New York city, and the sale had brought what were to me fabulous prices. How he grew the birds that outstripped others not only in weight, strength, grace and symmetry of form, but in the color and wealth of plumage was a mystery to his competitors. But when his poultry ranch in Jefferson county was visited the secret was out.

It was found that when the chickens were of suitable age the fancier turned them loose in the corn field. There they were left to the care of Mother Hen and Mother Nature. There they found in abundance the food they liked best, the food nature intended for them, bugs, worms, grasshoppers, etc. This, with the exercise necessary for securing it, developed the perfection of body, while just enough of sunshine and shadow gave to the plumage many of its rare qualities.

This was the method adopted by which the prizes were won away from the city-bred, city-fied birds that had been grown in "yards" where they had had nothing to do but to stand on one leg, blink at and quarrel with their companions and eat greedily the food brought them by the provider.

Henry Van Dyke says that he "may never be guilty of tagging a moral to a story." In the discerning wisdom of our editor, the Home Circle occupies in the RURAL WORLD the same page with poultry. The fact that the story of the prize poultry is sent to the farmer, rather than to the latter, reveals to thoughtful parents its moral.

ESSEKES.

Mothers will find "Mrs. Winslow's Soothing Syrup" the best remedy for Children Teething.

Written for the RURAL WORLD.
A EUROPEAN TOUR.

Possibly there are members of our genial Home Circle who, like myself, have never had the good fortune to take a European tour. To those, if there be any, I hope the following narration of a friend's adventures, may afford some entertainment and perhaps information. I think it a wise thing to glean all possible facts about the various modes of travel, especially foreign. While we may never have occasion to put our knowledge into use, yet the knowledge itself can furnish valuable reinforcement for conversation and a fund for the satisfaction of inquiries.

The young lady of whom I am about to write made her ocean trip in the middle of the June month. But she had begun to make her plans a few months before. So there was ample time, properly managed, in which to make her arrangements. The problem which was uppermost in her thoughts was the familiar dress problem. It so chanced that this young person was rather practical, and decided to travel with as little baggage as possible. However, she was obliged to take a few more articles than she had planned, because visiting friends as well as touring was included in her continental program. She found, on inquiry beforehand, that she was likely to meet with some very cool weather while abroad ship. So this emergency had to be provided against, in addition to any others which might arise.

The bulk of her apparel was compactly arranged in a small steamer trunk, long enough to fit under a stateroom berth. For hand baggage, my friend carried a dress-suit case and umbrella. In the steamer trunk went her heavy, long coat for the cold weather, a steamer blanket, visiting dress, only one or two, and her numerous skirt waists. One must be very careful to take a proper assortment of toilet conveniences, as any lack of them will be sorely missed under circumstances where their renewal may be a matter of difficulty. In this case she carried some extra waists to be used for traveling, and the various little appurtenances for which a young lady seems always to find use. My friend wore for traveling a walking skirt, accompanied by a short jacket and neat hat, which would not be disordered by the sea breezes.

She found the life on shipboard very delightful, as she was not in the least seasick, although her two companions were sorely afflicted as aforesaid. In their stateroom were two berths, just wide enough for one, and a couch made up as a berth. There was also in the room a full length mirror and toilet table cleverly built into the wall. The bathrooms had to be reached by going through various passageways. Here, every morning, the voyagers refreshed themselves with salt baths, which, in fact, were the only kind obtainable on board. It took them some time to discover that only a particular soap could be used successfully with the salt water.

The table board was all that could be desired, as to food, decorations, favors and the rest. The dining room, and the remainder of the ship were treated similarly as to decoration, the galleries and woodwork, and the ship being done in reds and tones of the same color. By the way, it is a good thing to make for the captain's table if possible, as the service is much more expeditious there than at the other tables.

For amusement in daytime, the passengers played shuffle-board, quito and other games. At night all who wish could devote themselves to the terpsichorean art or else promenade and listen to the entrancing music. On this particular ship there chanced to be a happy aggregation of cultured people, musicians, scientists and the like. So that one rightly inclined might derive a great deal of benefit from the mere contact, aside from their intelligent conversation.

At Plymouth, England, the ship's first landing place, our traveler's two companions left her to continue her journey alone, while they "toured" England. But their arrival in Hamburg relatives acted as chaperones.

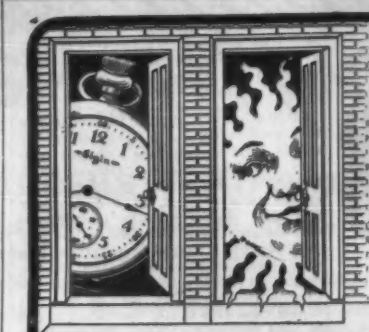
It is not my intention to describe exhaustively the various sights beheld and sites traversed by her, but I shall give merely the outline of her field of travel, with, mayhap, a few impressions let in. As her stay was chiefly in Germany and Switzerland it may be well to say a few words of Heidelberg, first, one of the most famous university towns in the world. It is a town gay with students, made beautiful by the lovely Rhinish scenery and dignified by its cathedrals and many ruins of old castles, built on the steep slopes of rugged hills and on the banks of the Rhine itself. There is one old castle whose owners have permitted it to become partly ruined without attempting to restore it. They still live within, in

apparent comfort, while the roof and sides are overgrown with rank grasses. At Balthsburg is a tunnel cut entirely through a hill, rather than undertake the expense of making a roadway around it. The tunnel is about a block and a half long, the interior being divided into roadways and footpaths, and illumined with electricity. Of Cologne it would be impossible to enlarge satisfactorily, because its true realization can only be had after actual sight of the place. The famous cathedral there is larger than anything we could conceive of. Its structure was protracted through centuries, some contributing here, others money, or the material of which it is built. The doorways are deep and shadowy, their sides studded with statuary, and the doors of massive metal. The pinnacles are almost covered with their innumerable statues giving the peculiar fretted look to the external cathedral. On the interior the immense pinnacles are formed by the joining of many small ones exquisitely fitted together and producing a delightful effect. The light within the church is very dim, because of the great width of the church and the stained glass in the windows. I feel that this is but a scant description, but I am forced to deal largely with impressions in this. So I shall leave Cologne for the charming little chalet in the Alps, where my friend arrived in the early evening. Desirous of some refreshment she made known her wishes and was provided with small pears as hard as the bread of ingratitude. These being refused, she was then furnished with large, delicious black cherries. She is still wondering why they did not come first.

The expenses for general living abroad are rather cheaper than here, but it is customary to give tips for the slightest services, which we would be glad to render for nothing. Gloves and small things are quite reasonable, many unique ideas in designing being carried out in boxes for all sorts of articles, porcelain and the like.

My friend tells a laughable incident of a woman on the same ship, transporting an immense bag of soda crackers and a box of Mason jars, thinking that the former makes were not equal to ours. But the duty on them proved to be almost one-half of their real value. In New York a fixed amount is allowed, under which souvenirs and other articles are immune. With the accounts of foreign railways and their usages I was not favorably impressed. Each car is divided into compartments of four classes, differing from each other in the elegance of their equipments. In the first-class each compartment is supplied with two settees, opposite each other, and a door on either side. Passengers are cautioned not to look out the door, as it is held none securely, and there have been many accidents from this source. There is also a law forbidding any one to get out except at the specified side. When one is in the car, the door is slammed and several stations may be passed before there is any evidence of a conductor. If you should happen to want to disembark before the next station, your appearance you would be in a dilemma. My friend had such an experience. She was enabled to get out only by pounding the door in order to attract the guard's attention. Whereupon he let her out. Another odd fact is that the only way by which you can tell when your destination is reached, is to know beforehand the time the train gets there. When such a time draws near you may know you are in the right place, as the schedule time is rarely at fault.

Foreign life is certainly improving to an American-born citizen, especially where it teaches deliberateness of purpose and execution, but withal we still believe that "there is no place like home."



Next Door to the Sun

The timekeeping qualities of the Elgin Watch are perfect—next door to the sun.

Elgin

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The very largest number waste the fleeting moments in useless amusement, in vice and immorality, regardless of the baneful results. They forget that all that they have of life comes from the hand of the Divine Father, until at last eternity confronts them, and they must go into the great future with the fearful load of a wasted life of time, gone beyond recall.

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It is evident that the increased prices of beef and mutton are largely due to increased supply; hence will be maintained. The great cattle ranges of the west

are gradually encroached upon by the small farmers who engage in diversified farming, and this cutting up of the ranges into small farms has slowly but surely reduced the numbers of beef cattle and sheep coming to market; add to this the fact that the population of these United States is increasing at the rate of about a million a year, and it is not necessary to shout "trouble" when asked why prices of meats are higher. We believe that these higher prices are substantially due to these perfectly natural causes, to the general law of "supply and demand"—an increased demand being met by a steadily decreasing supply; and we further believe that this decrease in supply and increase in demand is practically permanent; there will be fluctuations in price, no doubt, but the increase will pretty likely be maintained.

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The Pig Pen

PREVENT HOG CHOLERA NOW.

This disease may be held in check to some extent, and Dr. A. T. Peters, of the Nebraska Experiment Station, in a recent bulletin calls attention to preventive measures. He says: It seems strange that in the fall, and especially when there is an abundance of forage when green corn is fed to hogs, this disease becomes quite prevalent. I believe that it is dangerous to give hogs more food than they can readily consume. It is well to use preventive measures. First, the pens where the animals are housed should be kept clean. That means house and pen should be kept clean, and especially the pens. See that the animals are in a thriving and healthy condition. See that they are free from lice, that the pens, as well as the hoghouse, is free from lice. Use slaked lime or gas drip freely around the pens and around the animals. If you notice that animals pass worms, treat them for worms. You may use turpentine in the feed. Give an average animal a tablespoonful. It is well to administer it on an empty stomach, or you may give the following coal tar creosote solution: Coal creosote one ounce, water ninety-nine ounces. Ninety-nine ounces of water equals six pints and three ounces.

GIVING THE MEDICINE.

One ounce of this is a dose for a full-grown animal, is best administered with the morning feed. If you wish to drench the animal and not give it in the feed, use a drenching tube. A drenching tube may be made by taking an ordinary tin funnel and rubber tube or hose, say three feet long and three-eighths to one-half inch in diameter. Into this rubber tube insert the lower end of the funnel, and then drench the animal by placing the rubber tube between the animal's back teeth, allowing the hog to bite on it. It is well to place a piece of metal at the end of the rubber tubing, so that the animal may bite on it continually without stopping the flow of liquid by pinching the rubber hose. It is of great importance not to close the patient's nostrils.

POLAND-CHINAS.

Bred Poland China Gilts for Sale
At Walnut Valley Farm, near St. Louis, Mo. Best breeding stock and finest quality of hogs. Write for prices.
F. W. WALKER, Walnut Valley Farm, Mo.

POLAND-CHINAS.

March, April and May Pigs. All bear the well-known Poland stamp—size, quality and color. J. F. VICKERS, Box 11, Belleville, Ill.

Shropshire Yearling Rams and Poland China Pigs.

For either sex, of good pedigree and individual merit, are offered for sale by J. W. BOLLES, of Annapolis, Md. Write for prices. Full particulars on request.

READY TO SHIP high-bred Poland Chinas and O. C. Bred and Gilts of early spring farrow, ready to breed.

L. A. SPIES BREEDING CO., St. Louis, Mo.

VIVIAN & ALEXANDER, FULTON, MO.

Brothers of the best strain of Poland-China hogs. Registered Jersey cattle and registered Black cattle. Young stock for sale at all times.

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At reasonable prices, 75¢ of winter and spring farrow and one good sow. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

C. H. JONES, B. B. S. PARKER, Ill.

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BERKSHIRES.

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CLOVERDALE FARM HERD

Of large English Berkshire sows, best of breed. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

LARGE ENGLISH BERKSHIRE HOGS

For sale. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

LOARN HAYES, Bellingham, Mo.

DUROC-JERSEYS.

Duroc Jersey Pigs.

March and April farrow. Both sexes; unrelated. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

DUROC JERSEYS, row. Special prices on male pigs. Write me. H. M. SHOOT, Armstrong, Mo.

ROSE HILL HERD of Duroc-Jersey Hogs.

A choice lot of hogs ready for service and gifts ready to breed. Also pigs ready to wean for sale. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

S. Y. THORNTON, BLACKWATER, MO.

FOR SALE.

My herd of Black Knight B. 6688, size Belle Knight B. 6677; also pigs, both sexes, ready to ship. Also a few gilts ready to farrow. Write for prices. J. F. VICKERS, Box 11, Belleville, Ill.

A. I. MOORE, Mt. Vernon, Ill.

CHESTER WHITES.

Order now taken for spring pigs from best sows, prize-winning animals. Prices reasonable. Call or write to me. J. F. VICKERS, Box 11, Belleville, Ill.

H. RAUSCHER & SON, Ashton, Mo.

MOORE'S HOG REMEDY

The Original Hog Dip. Used on Outside and Inside of Hogs. Kills lice and fever germs, cures mange, cures and cures; aids digestion, promotes healthy growth, and prevents disease, at small cost. At Dealers in Sausage Cans Only. Useful book with illustration of Dip Tank FREE. Address: MOORE C. & N. CO., 1017 Duane St., Kansas City, Mo.

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For SHEEP, HOGS and CATTLE, from \$1.00 per 100 up. Best on the market. Write for free catalogue. F. S. BURCH & CO., 173 Michigan St., Chicago.

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TRAUBER'S LIQUID EXTRACT OF BACON

Made from select hams, cured in the best manner, and contains no artificial coloring. Write for free catalogue. E. Kraemer & Son, Milwaukee, Wis.

white drenching. Avoid dirty pens and dusty feed yards, especially in hot weather.

If the premises should become infected with cholera, care should be taken to dispose of the dead carcasses. It is far better to burn them along with the litter that has accumulated, if it is possible, than to bury them, because if buried they may become rooted up at some future time and produce another outbreak. Air-slaked lime and gas drip (which can be secured from any gas house at very reasonable cost) are the very best disinfectants that can be used, and no hog raiser should be without them.

A GOOD PREVENTIVE. To treat the affected animal it is well in the first place to give them very small quantities. One should not be at all alarmed if the animal does not eat for several days; in fact, that should not be a matter of great concern. Rest is essential. Try and keep the sick animal as quiet as possible. If the animal will eat food, probably as good a medicinal remedy as can be given is the official government prescription, which is as follows: One pound each of wood charcoal, sulphur, sulphate of soda and antimony sulphide; two pounds each of common salt, sodium hyposulphite and sodium sulphate. These ingredients can be secured from any drug dealer and should be thoroughly mixed. The dose is a large tablespoonful to each 200 pounds weight of a hog, once a day. If the animals do not eat, add a little water to the medicine, shake thoroughly and give as a drench.

TROUGH FOR THE HOGS.

A good "recipe" for the construction of a hog trough is offered by G. H. Moore, of Kansas City, who writes as follows: "Take a board one inch thick, eighteen or twenty inches wide, level the edges on angle of fifty degrees, and side pieces on bevel edged should be six inches wide, allowing one inch to project below lower edge of board that forms bottom of trough. Place a board twelve inches wide in center, raising the board two inches from bottom and every eight inches put in a partition, nailing secure to board in center and side pieces of the trough. This makes a trough the hogs cannot get into and every hog must eat in his own department. On the top or board in center you can build a hopper where shelled corn can be put, leaving the space below large enough for the corn to pass through to the trough below. If a cover is placed on this hopper it will keep out all kinds of stock from eating the feed in the hopper, also storm and dirt. This trough has many advantages over any other I have seen or known, and I will mention a few of these. Being made of inch lumber, it is light and convenient, and a small amount of weight. Only about forty or fifty pounds, and forty-eight hogs can all feed at the same time at this kind of a trough. As the hog cannot get his feet in this trough little or no mud or filth is carried into the feed, and the partitions keep the hog in his own department. This is a real money saver and certainly an agreeable surprise to the hog."

PIGS AND BACON.

The popular taste has greatly changed during the past few years, or perhaps it would be more accurate to say that the demand has changed, for one can hardly imagine anyone preferring coarse meat to that which is finely grained, writes Agricola in "Michigan Farmer." Until comparatively recent years the "biggest was best" in pork. Now, however, there is little demand for big joints. Big fat joints are found to waste more in cooking, while the goodness of the fat renders it distasteful to any but the strongest digestion. Pork was practically the only meat within the reach of the laborer and artisan class before the importation of beef and mutton assumed the large proportions it has attained during the past twenty years, and they had little opportunity of choosing their joints. With better wages they have a larger choice, and the coarse meat which sold readily a few years ago is now hard to dispose of. The increasing popularity of lightly cured bacon also tends towards the curing of smaller sides. Those enormous sides of bacon which made the rafters of the farmer's kitchen groan are almost useless to him, for the laborer will not eat them. Small joints of fresh pork are required to compete with fresh beef and mutton. Bacon curers are always glad of pigs weighing from seven to eight scores (of 20-lb.). The larger firms show their appreciation of the small sides by giving the highest price for pigs of seven to eight scores, and by taking off costs less to produce a score of meat after the pig reaches eight scores than it goes before. There is proportionately less frame to build up, and less lean in proportion to fat is made. It costs less to produce fat than to build up frame, and to make lean meat; so fresh pork sides, if, however, a pig is suitable to kill at that weight, or to be kept on to a larger weight, advantage may be taken of the condition of the market to dispose of it when the feeder thinks best. Speaking generally, it is better that a pig should stand feeding to a considerable greater weight than eight scores than that it should only exceed that weight by small amount. An animal which, under ordinary good feeding, fattens to only about eight scores within a reasonable time, generally fattens too grossly, and consists of little more than blubber.

THE HOG MARKET.

That the hog crop is short needs no more convincing evidence than the figures of the market movement, which, for the first nine months of 1902, shows a deficiency compared with the same five principal markets received more than \$20,000 less in September, 1902, than during that month of 1901 there appears to be no early prospect of augmenting the supply. That the man who was tempted by prevailing high prices to sell his breeding stock made a mistake admits of no reasonable doubt.

DEVELOP THE PIGS.

Brooders should take hold of their spring pigs now and give them the best of care and treatment. Put some growth on them and flesh them up, not fatten them but give them good growth. This means of course good food, food that will grow bone and muscle. Feed them regularly, feed them carefully, keep up their

appetites and watch that they do not get out of condition. Have plenty of fresh clean water for them to drink at will, plenty of pasture that not only affords them food but exercise in getting it, so necessary to develop them. The man who has good pigs does it by good feeding and good care. That is the secret of his luck. Neglect them and you will have a lot of poorly developed and unsatisfactory pigs.

ERGOTISM.

CAUTION, STOCKMEN.—During the present season, owing to the heavy rainfall and other climatic conditions, there has been developed upon wild rye and other similar grasses a fungus known as ergot, commonly called "spurred rye." Within the past few weeks a number of complaints have been received at the Kansas Experiment Station from the eastern and central parts of the state, indicating that injurious and fatal results have occurred among stock from eating this fungus.

Ergotism is a disease of animals caused by eating ergot either on pasture grasses or hay. Ergot is a parasitic fungus (Claviceps purpurea) that develops on the heads of wild rye, redtop and similar grasses. This fungus replaces the ordinary seed or grain with a black or brown-black grain much longer than the ordinary rye grain, cylindrical, pointed and slightly curved. The number of grains of ergot in a single head of rye or grass will vary from one to a dozen or more. The ergot is not recognized by its shape and color. There is no dust or smut upon the heads of grain as there is with some fungi. Ergot does not attack corn or sorghum. Outbreaks of ergotism occur nearly all over the world, and often cause heavy losses among cattle and horses. Serious losses from ergot in this state have not occurred since 1884, but it is possible that owing to the abundance of ergot upon grasses the present season, serious loss may follow unless care is exercised to prevent feeding a large amount of ergot. Cold weather and a limited supply of drinking water seem to favor the development of ergotism.

SYMPTOMS.—The symptoms of ergotism may occur at once after eating the fungus, provided the animal gets a sufficient quantity; or they may occur only after the animal has eaten the fungus for some time. Ergot leaves a bad taste in the mouth, and the animal is usually restless, especially in the extremities—feet, tail and ears—the affected parts swell, get cold, a well-defined line usually forms about the part, below which the tissues die and slough off. When the feet are attacked the animal becomes very lame. Ergot causes abortion in pregnant animals, but this must be distinguished from contagious abortion among cattle. Ergot also affects the nervous system, causing trembling of the muscles, weakness, staggering gait, and sometimes convulsions. The digestive system is often affected and there may be purging, indigestion and abortion of the fetus. The most seriously affected part is the head, and the animal may die.

TREATMENT.—To prevent the disease do not feed animals hay or grass containing ergot, and when the disease occurs ergot should be withheld at once. A dose of one pound of wood charcoal, one pound of sulphate of soda, one quart of raw linseed oil for horses, should be given. Give sloppy, nutritious foods with plenty of drinking water. Bathe affected parts, feet, etc., with hot water, rubbing to stimulate circulation, and apply antiseptics such as a five per cent solution of carbolic acid. Suspected specimens of ergot may be sent to the Botanical or Veterinary Department, Agricultural College, Manhattan, Kansas, for identification. Hay that has been cut early is less apt to contain ergot than late-cut hay.

N. S. MAYO, Veterinary Department, Experiment Station, Kansas State Agricultural College, Manhattan, Kan., Sept. 18, 1902.

OATS A GOOD FEED.

Oats is a very valuable feed for producing growth in pigs. It is also one of the best for feeding brood sows. It is a bone and muscle former. It is not a fat-forming food like corn, but when composed of one-half or one-third of a mixture of cornmeal and ground oats, it will make a very valuable feed for pigs, brood sows and young pigs. Corn itself produces more fat without a corresponding production of bone and muscle. A very successful feeder believes that oats ground is better than shorts alone. That shorts or middlings produce too much flabbiness and without the strength of bone that oats will give. A ration balanced with corn and oats, skim milk will make a most excellent growth and is a very valuable combination. The farmer with plenty of oats has a hog feed that he can use to best advantage.—American Swinebreeder.

CROSS BREEDING.

There are many hog raisers who are not satisfied with any of the standard breeds and want crosses, says A. J. Legg in "American Swinebreeder." I regard this as a mistake, as crosses are not usually as good as either pure-bred or grade animals. If a farmer cannot keep pure-bred hogs it is best to select a male of some standard breed and produce grades, they are almost as good as pure bloods for feeding purposes and are much more uniform than crossbred animals. In this case a full-blood male should always be used. If a farmer cannot keep pure-bred hogs and found them to be very good animals, but I like the pure-breds better. If pure-breds are raised I often have a chance to sell them as breeders at a better price than grades would sell.

THE WEIGHT OF FEEDS.

The following are the average weights of the most common feeds, one quart being the bulk quantity in every case:

	Lbs. Os.
Wheat bran	3 1/2
Wheat middlings	3 1/2
Wheat middlings (fine)	1 3/4
Oats	3 1/2
Corn meal	1 8
Linseed meal (old process)	1 1/2
Cotton seed meal	1 8
Gluten meal	1 1/2
Mixed wheat feed	2 1/2
Rye bran	3 1/2

DEPEN THE MISSISSIPPI.

The St. Paul "Pioneer Press" is advocating the deepening of the channel of the Mississippi river, and it makes the statement that if the expenditure of \$20,000,000 would deepen the channel so that grain barges drawing ten feet of water might make the trip from St. Louis to New Orleans, it would be the most profitable investment ever made by the government. Such an improvement of the river would make it possible to ship grain down the river for two and a half cents per bushel,

and by building up the Gulf route furnish a competing route to the sea that would make the toll-gathering cities of Chicago and New York get down on their knees and beg for business. Now those cities dictate the freight rates, the tolls and everything else, but with the improvement of the river it would be the shippers in the great west who would dictate the terms.

During what is called the open season it now costs \$4 cents a bushel, including elevator charges, to ship a bushel of grain from Duluth to New York, and if the grain is to be exported it costs another one-half to three-quarters of a cent a bushel to get it on board, so that wheat for export costs \$4 1/2 cents a bushel, by the time it is ready to sail out of the port of New York. Great fleets of steel barges are now being put into use on the lower Mississippi, and as soon as Congress sees the wisdom of providing the 12-foot channel in low water all the way to St. Louis the new route to the sea will emancipate the west. The improvement would make New Orleans the principal port, for imports as well as for exports, as far as the trade of the Mississippi valley is concerned. The route to the sea by way of Chicago and New York is not the natural route, and the people of the west should get together and join forces in developing the one that is natural.

POTATOES COMPARED WITH CORN.

In answer to a question, "Will it pay to turn hogs into a potato patch with potatoes at 35 cents a bushel and good corn at 25 cents a bushel?" a correspondent replies that a bushel of corn has about five times the amount of digestible nutriment of potatoes, and when corn is worth 60 cents per bushel, as a feed for hogs, potatoes are worth about 15 cents. Therefore he would say that it is cheaper to feed corn to hogs on rape than potatoes, even if the hogs dig them themselves.

AFRICA BUYS WHEAT.

The shipments of wheat and flour from the Pacific coast to Africa since January 1 show a total of over 2,000,000 bushels. This is more than double the amount ever shipped before in an entire season, and there is enough tonnage still under charter to load at Portland and Puget Sound ports for the Cape to bring the total by the end of the calendar year up to approximately 3,000,000 bushels. Exports to China and Japan are also rapidly increasing, and northwestern ports are becoming great centers of commerce.

THE VALLEY AND THE WORLD.

The entire business world of the United States and of Europe is, at the present time, carefully scanning the news regarding the wheat, corn and cotton crops of the United States. Financial and speculative magnates are building far-reaching hopes on current crop reports. The yield of wheat, millions of dollars have been borrowed abroad, with the expectation of settling in heavy exports of breadstuffs and cotton. Wall street and the Chicago Board of Trade are standing alert, so to say, with suppressed excitement and anxious expectancy. Upon the crops of wheat, corn and cotton, at this writing, of marvelous promise, the material welfare of millions of people is depending. They underlie our commercial and industrial development, the prosperity of the whole nation. The wheat and corn that we expect to ship abroad will supply the needs of Europe, Japan, China and other countries, and our cotton will set in motion many a spindle on both sides of the continent.

And where are these so important crops raised? Where are all these hopes and fears centered? Between the Alleghenies and the Rocky Mountains, between the Great Lakes and the Gulf—there you will find the agricultural Eldorado of America and Europe. It is an empire greater than that of Alexander the Great and of the Caesars. What was ancient Mesopotamia, what was the Egypt of the Pharaohs, compared to this? It is the magnificent domain of the Father of Waters, with the Mississippi Valley? Present indications promise yields of wheat, corn and cotton within the States and Territories of this imperial valley the total value of which will not fall below \$2,000,000,000. The wheat crop of about 10 per cent of the total national wealth of the United States is annually produced within the boundaries of the Mississippi Valley! The annual value of these three crops is more than \$1,000,000,000 in excess of the total gold and silver notes in circulation within the United States. A nation balanced with corn and wheat, but they are borne out by statistical tables. There is nothing exaggerated about them. The person who carefully considers and weighs them will be able to form an intelligent idea of the formation of our economic strata, of the origin of our wealth, of the result of our political, commercial and industrial greatness.—Francis A. House, in Valley Magazine.

A FROG MARKET.—The "National Provisioner" gives some facts from a "frog expert," who refers to the Chicago market: "It has been customary to ship the frogs to market alive cut up in pieces, but it is now found that some of them are almost as large as hens making this quite feasible. Chicago and St. Louis are the heaviest consumers of frogs. Recently some genius hit upon the plan of putting blocks of ice in the crates for the frogs to sit upon. I don't know whether the frogs like this or not, but they are not killed by it and arrive in much fresher condition than before. I am told. The industry has grown to little less than mammoth proportions, and the festive frog is only second to the Missouri mule as a wealth producer in Southwest Missouri, the hen having dropped to third place."

COLONIZING THE SOUTHWEST.

A concerted plan to colonize the great Southwest is being actively projected by the Frisco, Missouri Pacific, Iron Mountain, M. & K. T. Cotton Belt, Rock Island and Santa Fe railway systems, and representatives of each will be present at a meeting to be held in this city in a few days, when the details of the project are to be arranged. When the arrangements are completed, it is said, hundreds of thousands of homeseekers will pour into the great Southwest tapped by these railway systems, and it is anticipated that to promote the colonization scheme one fare for the round trip, or even one cent a mile rate, will be offered.

Bryan Snyder, passenger traffic manager of the Frisco, fathered the present project and began, three years ago, to interest representatives of other railways in the movement.

The Santa Fe and Rock Island were the first to be enlisted, as they are said to have recognized that it was more to their interest to colonize the Southwest

with its rich mineral and agricultural fields than the Northwest.

Mr. Snyder recently returned from the East, where he has been in conference with high officials of the various systems named. Concerning the colonization project, he said among other things: "This meeting to be held in St. Louis is expected to turn the tide of immigration from the Northwest and Pacific coast to the great Southwest, of which St. Louis is the natural gateway."

"An effort will also be made to influence traffic through this gateway from the central and southern portions of Europe."

Should the other roads not participate in the plan broached, Mr. Snyder says that the Frisco will, unaided, offer the lowest possible rates to draw the homeseekers of the world to Texas, Missouri, Arkansas, Oklahoma and Indian Territory.

THE IMMENSITY OF SIBERIA.

A traveler in Siberia says that few people realize the immensity of that country. To think of a single state stretching through 120 degrees of longitude and possessing one-ninth of all the land on the globe is staggering. The United States and all its possessions, and all Europe, except Russia, could be put into Siberia, with land enough left over to make 35 states like Connecticut. He had thought of it as a convict settlement only, as most people do, but he found it a country of nearly 3,000,000 people, 77 per cent of whom are either natives or voluntary immigrants, and all living better and enjoying more political and religious liberty than people in European Russia have. Where he traveled it was like Minnesota, where wheat, rye and vegetables and strawberries, raspberries and currants grow, and sheep and horses graze unharmed the year round.—Philadelphia Record.

A reliable authority states that the hog pays for his keeping in manure. Of course if the value of the manure is not considered the grower does not profit by it, but that is not the fault of the hog. Another authority asserts that the fertilizing value of the food consumed by the hog is equal to nearly one-half the value of the pork. Proper care of this valuable by-product is essential to profit, and the hog raiser who does not overlook it need not worry over periods of low prices, while every season of high values will greatly increase his wealth.

Ernest W. Wallen, Walnut Valley Farm, Monett, Mo., writes: "My herd were never in better working order than just now. No sickness and all in best condition. The herd is headed by a grand old Black U. S. and can be shown in any company; also a son of Chief Prindle M and others. The sows are of equally good strains. I also have some fine gilts, bred, ready to ship, also some males. Come and see. If my Poland Chinas can be best. You will be welcome. I have some B. Langhans cockerels for sale."

The Shepherd

ANGORAS FOR MISSOURI.

Editor RURAL WORLD: The largest Angora goat ranch in the world will soon be established in Missouri. A company was organized at the Planters' Hotel, in St. Louis, on September 28th, for the purpose of purchasing 5,000 acres of land on the Frisco Railroad near Cuba, and this ranch is to be stocked at once with goats. This company is the Frisco Livestock Company, capital \$100,000. Zack Mulhall, general livestock agent of the Frisco road, is president; Isaac H. Orr, trust officer of the St. Louis Union Stock Company, is treasurer; A. B. Hull, late secretary of the National Live Stock Association of Chicago, is business manager; S. A. Hughes, general emigrant agent of the Frisco road, is secretary. The above named gentlemen, with W. T. McIntyre, secretary of the National Angora Association of Kansas City, Mo.; Mr. W. C. Bailey, who is the largest breeder of Angora goats in the United States; H. T. Springfield, of St. Louis; R. B. Hart, of Springfield, Mo.; and J. L. McCormack, of Cuba, Mo., constitute the board of directors, all well known business men. The company will enlarge this land holding during the winter to enable them to handle a very large business. The plan is to import large numbers of all kinds of goats, and sell them to the farmers, giving long time to responsible parties. A competent, experienced goat breeder will be employed to assist the farmers in managing their flocks. This is a feature of the utmost importance, for without experience mistakes in the management of these flocks might result in loss, when if experienced counsel could be had these mistakes would not occur.

There is no good reason why this industry should not thrive in the Ozark country. The natural conditions are very favorable to it, the nearest good market at St. Louis is another great advantage. The goats will clear the land to a measure supplanting the services of an axman. Farmers will be enabled to enter into a profitable stock raising business, which will not only give him, but possibly other members of the family, employment. The goat is past when those people can make a living by cutting ties, and we believe that they should be encouraged to investigate this feature of stock raising.

The officials of the Frisco Railroad are to be commended in loaning not only their roads but their own personal influence and capital to this enterprise, and it is the purpose of the incorporators to interest all railroads of the Ozark region in this movement, realizing that it is to the interest and profit of the railroads to build up and improve the country through which they pass.

MATING FOR EARLY LAMBS.

Mr. J. B. Woodward of Niagara county, New York, who is regarded as an authority on mutton raising, says: "Very many methods have been suggested to make the ewes accept the ram in hot weather, a very necessary thing for the winter lamb raiser, and I think we have tried about all of them. Sometimes we have thought we had a sure method, only to find the next year that it had no merit at all. It is not natural for sheep to mate until cool weather in the fall, but there is a great difference in breeds. Take the Dorset, for instance; they have been used for raising early lambs for years, and have become accustomed to breeding much earlier than any other breed. In fact, a Dorset ewe, if rightly treated, will breed at almost any time of the year. But they are not plentiful enough to fill the demand for early lamb

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